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Houghton Mifflin Mathematics 3




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Houghton Mifflin Mathematics 3

Doug Super
Florine Koko Carlson
Irvin K. Burbank

Houghton Mifflin Canada Limited
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Houghton Mifflin Mathematics

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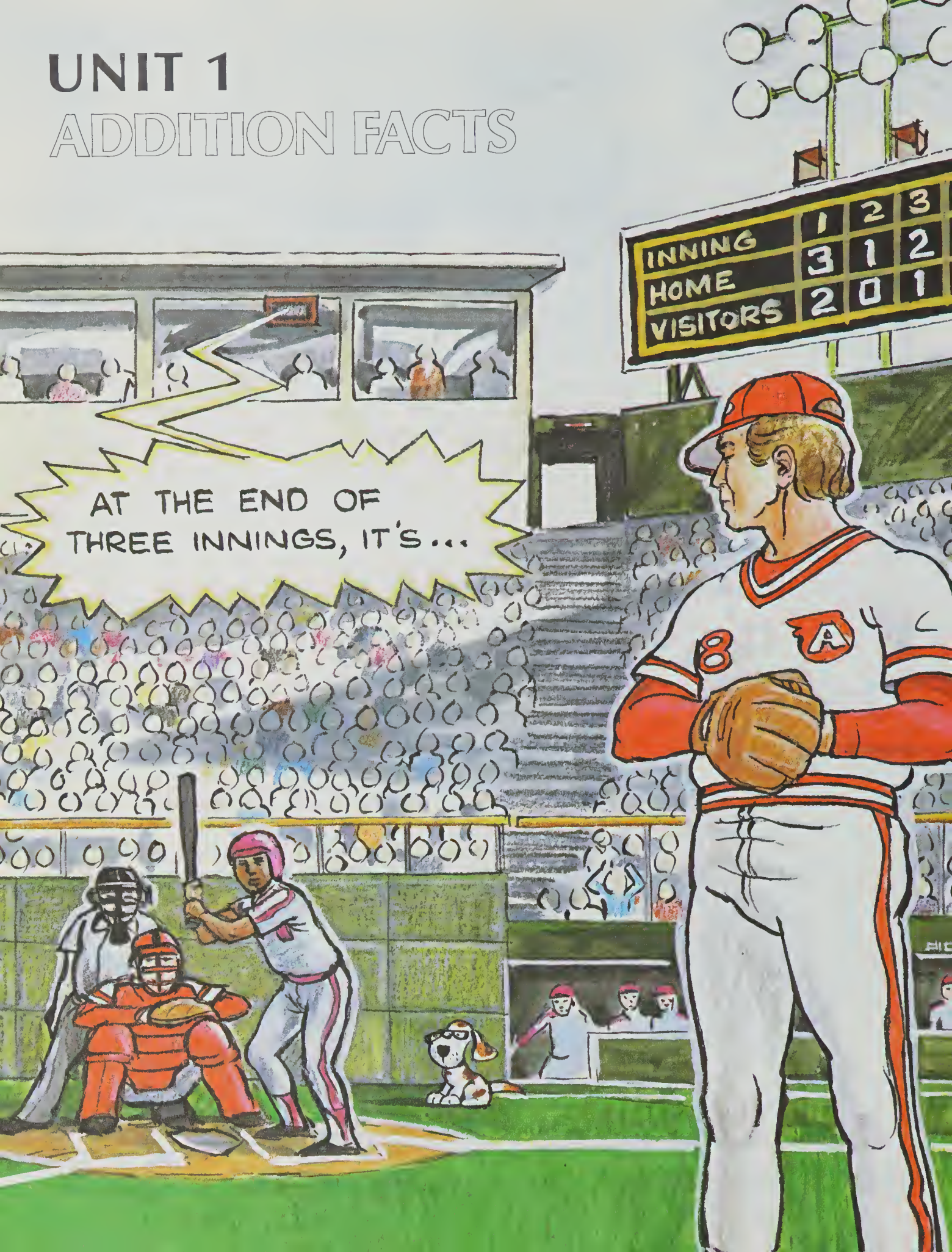
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UNIT 1

ADDITION FACTS



Mixed Doubles

Court A

1. $\begin{array}{r} 1 \\ + 8 \\ \hline \end{array}$	2. $\begin{array}{r} 7 \\ + 0 \\ \hline \end{array}$	3. $\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$
7. $\begin{array}{r} 2 \\ + 1 \\ \hline \end{array}$	8. $\begin{array}{r} 4 \\ + 2 \\ \hline \end{array}$	9. $\begin{array}{r} 2 \\ + 6 \\ \hline \end{array}$
13. $\begin{array}{r} 3 \\ + 1 \\ \hline \end{array}$	14. $\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	15. $\begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$

4. $\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$	5. $\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$	6. $\begin{array}{r} 2 \\ + 3 \\ \hline \end{array}$
10. $\begin{array}{r} 2 \\ + 0 \\ \hline \end{array}$	11. $\begin{array}{r} 6 \\ + 1 \\ \hline \end{array}$	12. $\begin{array}{r} 0 \\ + 9 \\ \hline \end{array}$
16. $\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	17. $\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$	18. $\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$

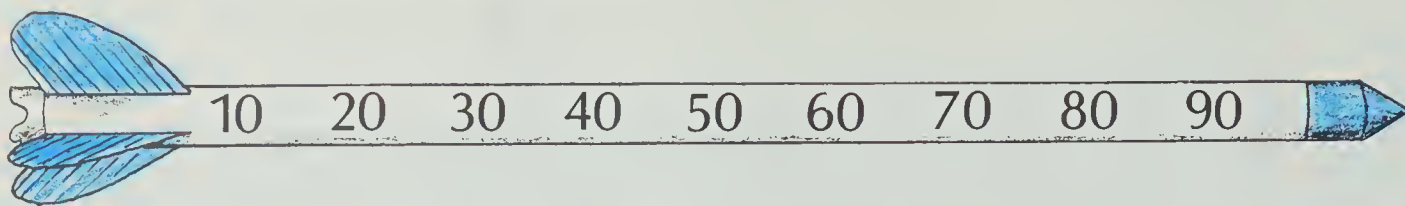
Court B

1. $\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$	2. $\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$	3. $\begin{array}{r} 1 \\ + 7 \\ \hline \end{array}$
7. $\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$	8. $\begin{array}{r} 1 \\ + 5 \\ \hline \end{array}$	9. $\begin{array}{r} 3 \\ + 5 \\ \hline \end{array}$
13. $\begin{array}{r} 0 \\ + 4 \\ \hline \end{array}$	14. $\begin{array}{r} 4 \\ + 5 \\ \hline \end{array}$	15. $\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$

4. $\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$	5. $\begin{array}{r} 4 \\ + 0 \\ \hline \end{array}$	6. $\begin{array}{r} 4 \\ + 1 \\ \hline \end{array}$
10. $\begin{array}{r} 1 \\ + 1 \\ \hline \end{array}$	11. $\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$	12. $\begin{array}{r} 2 \\ + 7 \\ \hline \end{array}$
16. $\begin{array}{r} 1 \\ + 6 \\ \hline \end{array}$	17. $\begin{array}{r} 6 \\ + 2 \\ \hline \end{array}$	18. $\begin{array}{r} 2 \\ + 4 \\ \hline \end{array}$

Check yourself.
Answers in Court A are the same as in Court B

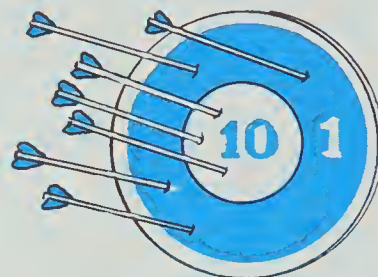
Numerals to 99



Mary paid Bill **34¢** for her archery lesson.

She started with **34 arrows**.

Today she scored **34 points**.



Counting on

10, 20, 30, 31, 32, 33, 34

Standard form 34¢

Tens-and-ones form

3 tens 4 ones

Standard form 34

Expanded form

30 + 4

Standard form 34

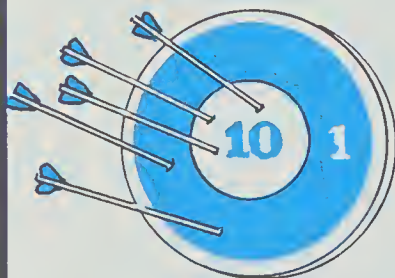
EXERCISES

Write in **standard form**.

1. $30 + 2$
2. $30 + 8$
3. $10 + 2$
4. $10 + 8$
5. 3 tens 5 ones
6. 3 tens 7 ones
7. 4 tens 3 ones
8. 4 tens 6 ones

Write in **expanded form** and **standard form**.

9.



■ points

10.



■ cents

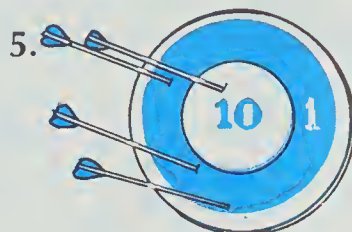
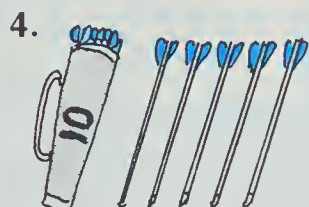
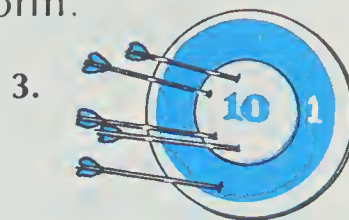
11.



■ arrows

PRACTICE

Write each in **expanded** form and **standard** form.



Write each in **standard** form.

7. 1 ten 3 ones

8. 2 tens 8 ones

9. 1 ten 0 ones

10. 0 tens 8 ones

11. $20 + 7$

12. $10 + 9$

13. $90 + 2$

14. $60 + 3$

15. $7 + 10$

16. $9 + 30$

17. $4 + 60$

18. $3 + 10$

19.
$$\begin{array}{r} 10 \\ + 4 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 10 \\ + 2 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 20 \\ + 8 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 40 \\ + 1 \\ \hline \end{array}$$

Hit the Apple!



I'm counting on you.

1.

2.

3.

4.

5.

45

6 tens 4 ones

86

$70 + 5$

94

46

6 tens 5 ones

87

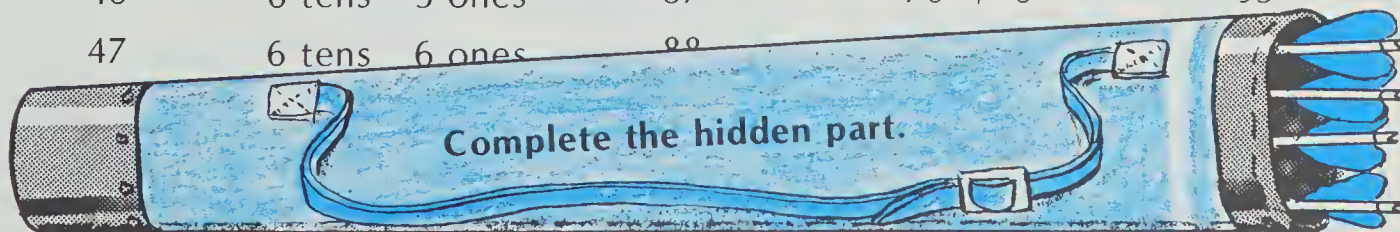
$70 + 6$

95

47

6 tens 6 ones

90



52

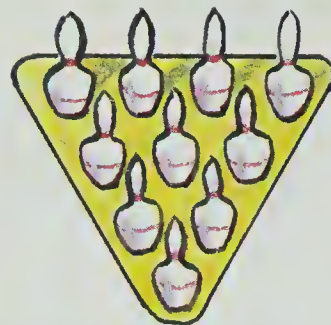
7 tens 1 one

93

$80 + 2$

101

Sums to 10, 11, and 15



Linda likes to bowl 10 pins.
Frank and Mascot made up
a game with 15 pins.



With 2 throws Frank and Linda knock down all their pins.
Poor Mascot gets 11 pins and a sore head.

$$\begin{array}{r} \text{Linda} \\ 6 \\ + 4 \\ \hline 10 \end{array}$$

$$\begin{array}{r} \text{Frank} \\ 8 \\ + 7 \\ \hline 15 \end{array}$$

$$\begin{array}{r} \text{Mascot} \\ 6 \\ + 5 \\ \hline 11 \end{array}$$



EXERCISES

Add these bowling scores.

1.
$$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 7 \\ + 3 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 2 \\ + 8 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 9 \\ + 1 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 4 \\ + 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7 \\ + 8 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 7 \\ + 4 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

PRACTICE

Copy and add these.

Place a triangle ∇ around your sums of 10.

1.	6	2.	8	3.	9	4.	4	5.	4	6.	9
	+ 4		+ 7		+ 2		+ 6		+ 7		+ 1
<hr/>											

7.	5	8.	3	9.	1	10.	2	11.	2	12.	7
	+ 6		+ 8		+ 9		+ 9		+ 8		+ 4
<hr/>											

13.	3	14.	8	15.	8	16.	7	17.	6	18.	5
	+ 7		+ 2		+ 3		+ 8		+ 9		+ 5
<hr/>											

19. $9 + 6$	20. $7 + 3$	21. $6 + 5$	22. $5 + 6$
-------------	-------------	-------------	-------------

23. Mascot got 7 pins with his first throw.
On his second throw, he knocked down 4 pins.
How many pins did he get down in all?

Copy and complete.

24. $7 + \blacksquare = 10$	25. $2 + \blacksquare = 10$	26. $6 + \blacksquare = 10$	27. $1 + \blacksquare = 10$
-----------------------------	-----------------------------	-----------------------------	-----------------------------

Triangle Numbers

Use pennies or checkers to find all the triangle numbers less than 100.



1



3

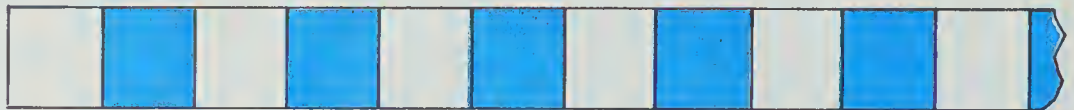
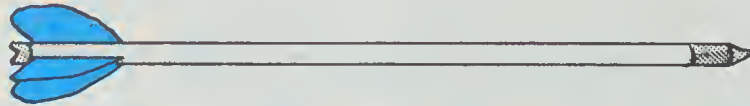
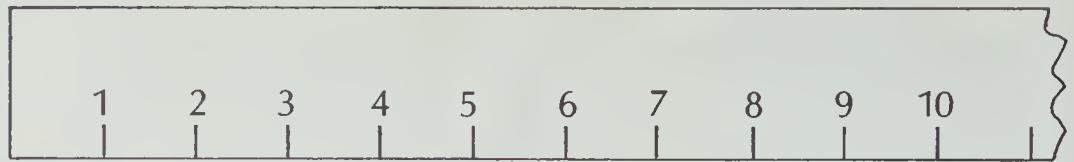


6

Don't stop.
Keep going!



Centimetre



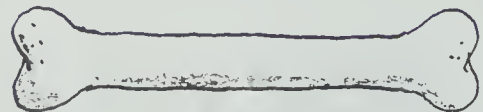
The arrow is **eight centimetres** long.

You write **8 cm**.

What if you don't have a ruler?

You can estimate the length.

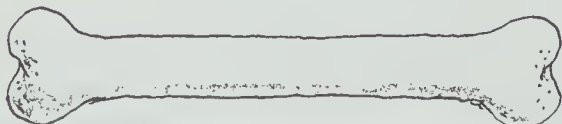
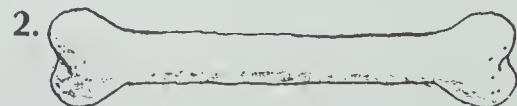
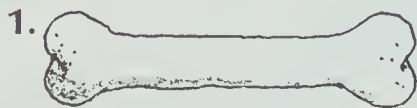
An **estimate** is a careful guess.



I estimate the bone
to be 4 or 5 bites, I
mean, centimetres.

EXERCISES

Estimate the length in centimetres. Then measure.



PRACTICE

First **estimate** the widths in centimetres.
Then measure.

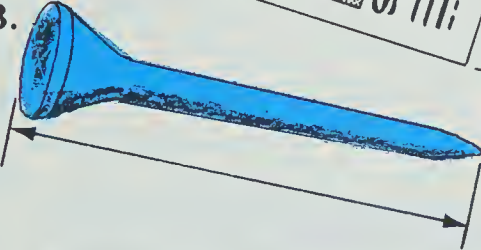
1.



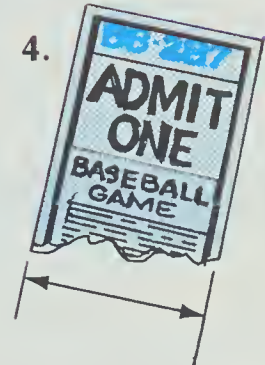
2.



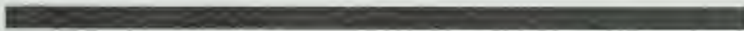
3.



4.



5.



6.



7.



Triangle Trickery

Trace this triangle 14 times.

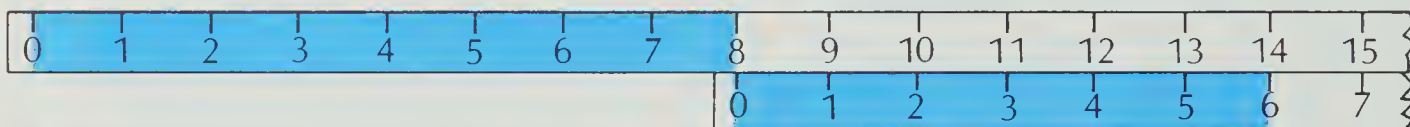
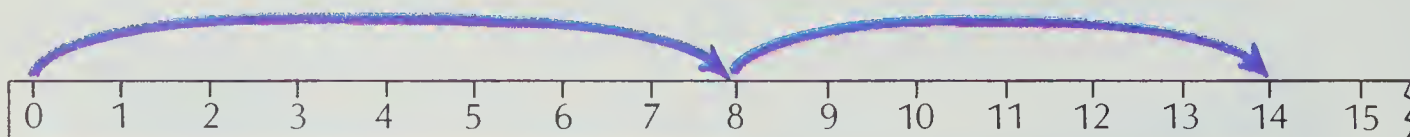
Cut out the 14 triangles.

Fit the triangles to cover these **squares**.



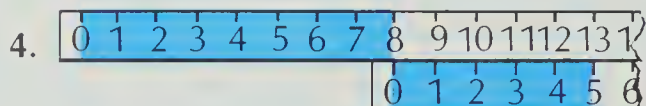
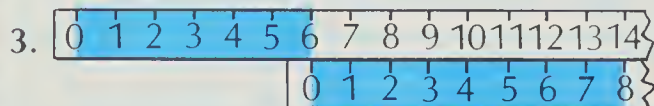
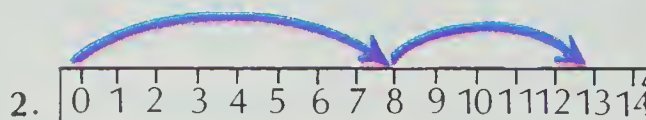
Sums to 12, 13, and 14

It looks as if
 $8 + 6 = 14$



EXERCISES

Write the addition facts for these.



Add.

5.
$$\begin{array}{r} 3 \\ + 9 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 4 \\ + 8 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$$

PRACTICE

Add. Use centimetre squares or rulers to help.

1. $\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$ 2. $\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$ 3. $\begin{array}{r} 4 \\ + 8 \\ \hline \end{array}$ 4. $\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$ 5. $\begin{array}{r} 6 \\ + 8 \\ \hline \end{array}$ 6. $\begin{array}{r} 7 \\ + 8 \\ \hline \end{array}$

7. $\begin{array}{r} 8 \\ + 6 \\ \hline \end{array}$ 8. $\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$ 9. $\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$ 10. $\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$ 11. $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ 12. $\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$

13. $\begin{array}{r} 9 \\ + 3 \\ \hline \end{array}$ 14. $\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$ 15. $\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$ 16. $\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$ 17. $\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$ 18. $\begin{array}{r} 3 \\ + 9 \\ \hline \end{array}$

Copy and complete these tables.

19.

+	2	5	4	6	3	7
7	9					

20.

+	2	5	3	4	6
8					

REVIEW

Write in standard form.

Add.

1. 5 tens 4 ones

2. $40 + 8$

3. $\begin{array}{r} 10 \\ + 6 \\ \hline \end{array}$

4. $\begin{array}{r} 60 \\ + 7 \\ \hline \end{array}$

Add.

5. $\begin{array}{r} 4 \\ + 6 \\ \hline \end{array}$

6. $\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$

7. $\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$

8. $\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$

9. $\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$

Add.

10. $\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$

11. $\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$

12. $\begin{array}{r} 4 \\ + 9 \\ \hline \end{array}$

13. $\begin{array}{r} 6 \\ + 8 \\ \hline \end{array}$

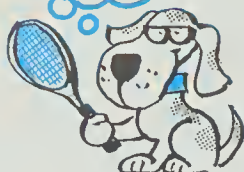
14. $\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$

Sums to 16, 17, and 18

$$\begin{array}{r} 9 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 2 \\ \hline 12 \end{array}$$

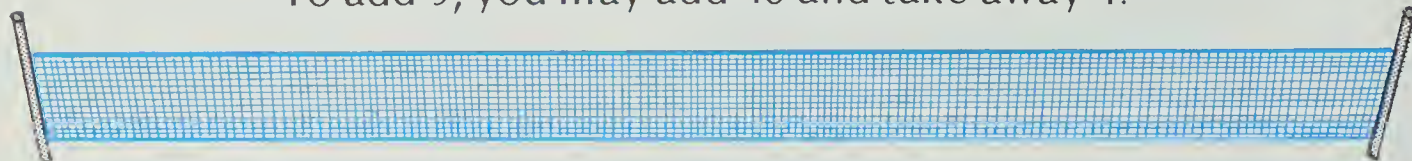
$$\begin{array}{r} 9 \\ + 3 \\ \hline 12 \end{array}$$



$$3 + 9 = 12$$

$$2 + 10 = 12$$

To add 9, you may add 10 and take away 1.



Even Numbers

0	2	4	6	8

..., 10, 12, 14, 16, 18
Can you spot the patterns?

Doubling is adding a number to itself.

0	1	2	3	4
+ 0	+ 1	+ 2	+ 3	+ 4
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
0	2	4	6	8



EXERCISES

Complete the addition facts.

1.	$\begin{array}{r} 9 \\ + 7 \\ \hline 1 \blacksquare \end{array}$	2.	$\begin{array}{r} 9 \\ + 8 \\ \hline \blacksquare 7 \end{array}$	3.	$\begin{array}{r} 9 \\ + 6 \\ \hline \blacksquare \blacksquare \end{array}$	4.	$\begin{array}{r} 3 \\ + 9 \\ \hline 1 \blacksquare \end{array}$	5.	$\begin{array}{r} 4 \\ + 9 \\ \hline \blacksquare 3 \end{array}$	6.	$\begin{array}{r} 5 \\ + 9 \\ \hline \blacksquare \blacksquare \end{array}$
----	--	----	--	----	---	----	--	----	--	----	---

Write addition facts for these.

7.	$\begin{array}{c} \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \end{array}$	8.	$\begin{array}{c} \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \end{array}$	9.	$\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array}$	10.	$\begin{array}{c} \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array}$	11.	$\begin{array}{c} \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array}$	12.	$\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \bullet \bullet \bullet \end{array}$
----	---	----	---	----	---	-----	--	-----	--	-----	--

PRACTICE

Add.

$$\begin{array}{r} 1. \quad 3 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 5 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 3. \quad 8 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 9 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 9 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 9 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 8 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 6 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 9. \quad 7 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 10. \quad 9 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 11. \quad 5 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 12. \quad 10 \\ + 10 \\ \hline \end{array}$$

8 hockey sticks
8 hockey cards
9 baseball cards

7 soccer balls
9 footballs
7 soccer shoes

13. How many cards?

15. How many balls?

14. How many things
for hockey?

16. How many things
for soccer?

Addition Table

$$3 + 7$$

Put a finger beside the 3.

Slide it straight across.

Stop below the 7 at the top.

The answer is 10.

$$3 + 7 = 10$$



+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

1. Find these using the table.

$$2 + 3$$

$$6 + 5$$

$$7 + 7$$

$$9 + 7$$

2. Find $9 + 6$ and $6 + 9$.

Are your slides the same?

Are the answers the same?

Three Addends



Who won the game?

Start at the top.

$$\begin{array}{r} 2 \\ 4 \\ + 5 \\ \hline 11 \end{array}$$

Start at the bottom.

$$\begin{array}{r} 2 \\ 4 \\ + 5 \\ \hline 11 \end{array}$$

Start at the ends.

$$\begin{array}{r} 2 \\ 4 \\ + 5 \\ \hline 11 \end{array}$$



$$\begin{array}{r} 6 \\ 3 \\ + 4 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 2 \\ 9 \\ + 1 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 3 \\ 7 \\ + 8 \\ \hline 18 \end{array}$$

EXERCISES

Add.

1.	2	2.	3	3.	6	4.	7	5.	4	6.	5
	2		4		2		1		2		2
	+ 3		+ 3		+ 1		+ 2		+ 4		+ 5
	<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>

Look for a 10. Then add.

7.	7	8.	9	9.	1	10.	2	11.	5	12.	7
	6		5		8		6		5		3
	+ 3		+ 1		+ 2		+ 4		+ 2		+ 4
	<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>

PRACTICE

First find a 10. Then add.

- | | | | | | | | | | | | |
|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|
| 1. | 9 | 2. | 6 | 3. | 2 | 4. | 8 | 5. | 9 | 6. | 5 |
| | 3 | | 4 | | 7 | | 4 | | 1 | | 5 |
| | <u>+ 1</u> | | <u>+ 3</u> | | <u>+ 3</u> | | <u>+ 2</u> | | <u>+ 9</u> | | <u>+ 5</u> |

Add.

- | | | | | | | | | | | | |
|----|------------|----|------------|----|------------|-----|------------|-----|------------|-----|------------|
| 7. | 2 | 8. | 6 | 9. | 3 | 10. | 4 | 11. | 3 | 12. | 6 |
| | 3 | | 2 | | 4 | | 6 | | 2 | | 2 |
| | <u>+ 2</u> | | <u>+ 7</u> | | <u>+ 3</u> | | <u>+ 3</u> | | <u>+ 3</u> | | <u>+ 4</u> |
-
- | | | | | | | | | | | | |
|-----|------------|-----|------------|-----|------------|-----|------------|-----|------------|-----|------------|
| 13. | 4 | 14. | 5 | 15. | 2 | 16. | 3 | 17. | 6 | 18. | 4 |
| | 4 | | 4 | | 7 | | 4 | | 4 | | 7 |
| | <u>+ 2</u> | | <u>+ 5</u> | | <u>+ 3</u> | | <u>+ 5</u> | | <u>+ 5</u> | | <u>+ 4</u> |

Find the winners!

19.

	1st	2nd	3rd
Blues	7	2	3
Greens	4	6	3

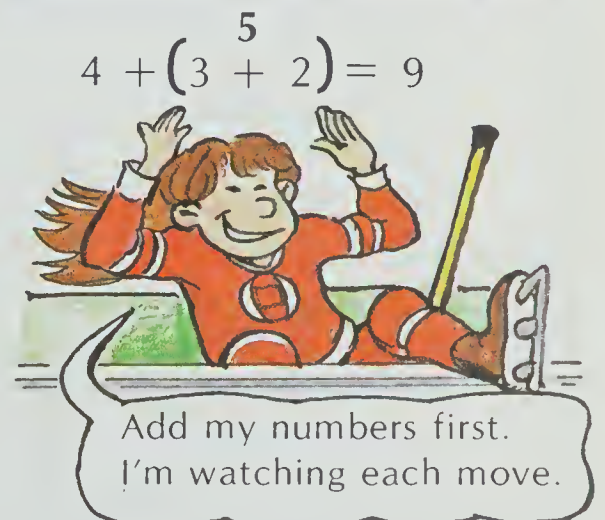
20.

	1st	2nd	3rd
Yellows	3	2	5
Oranges	5	4	9

Betty Brackets

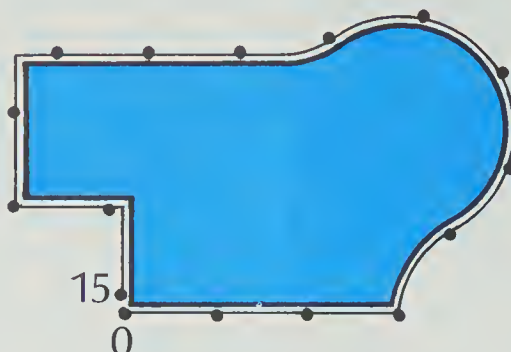
Betty Brackets shows us how to add three numbers her way.

- | | |
|------------------|------------------|
| 1. $(7 + 2) + 2$ | 2. $3 + (2 + 6)$ |
| 3. $2 + (6 + 4)$ | 4. $(4 + 4) + 7$ |
| 5. $(8 + 0) + 5$ | 6. $6 + (5 + 4)$ |
| 7. $(2 + 6) + 6$ | 8. $7 + (5 + 3)$ |

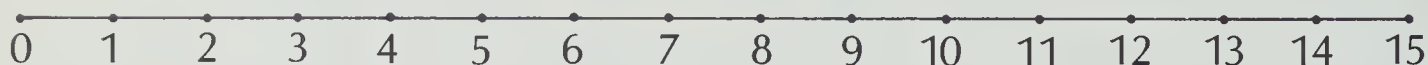


Perimeter of a Triangle

The **perimeter** of a figure is the distance around it.

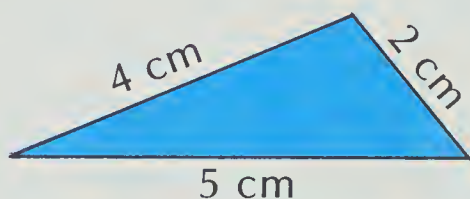


This figure has a perimeter of 15 cm (centimetres).



A **triangle** has 3 straight sides.

Its perimeter is the sum of the lengths of its sides.

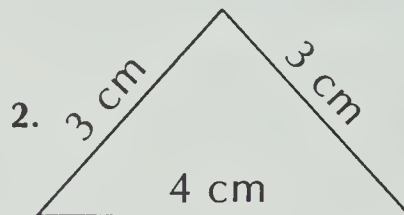
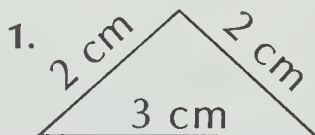


$$\begin{array}{r} 4 \\ 2 \\ + 5 \\ \hline 11 \end{array}$$

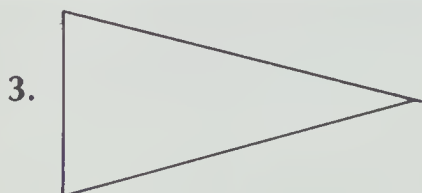
The perimeter of this triangle is 11 cm.

EXERCISES

Find the perimeter of each triangle.



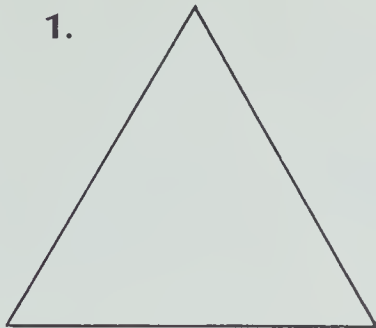
Measure the sides and find each perimeter.



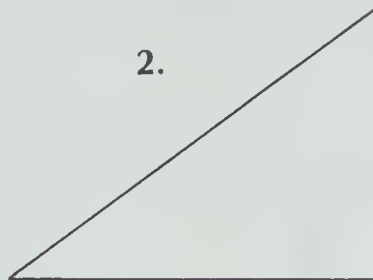
PRACTICE

Measure the sides and find each perimeter.

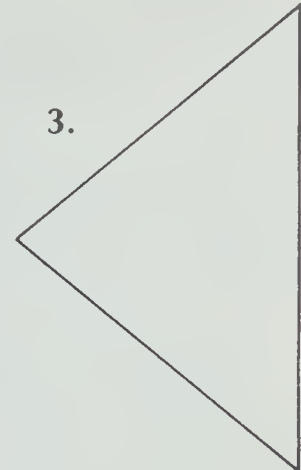
1.



2.



3.



Add.

$$\begin{array}{r} 4. \quad 3 \text{ cm} \\ 5 \text{ cm} \\ + 6 \text{ cm} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5 \text{ cm} \\ 4 \text{ cm} \\ + 3 \text{ cm} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 4 \text{ cm} \\ 4 \text{ cm} \\ + 7 \text{ cm} \\ \hline \end{array}$$

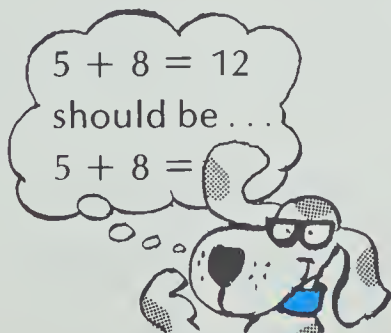
$$\begin{array}{r} 7. \quad 5 \text{ cm} \\ 3 \text{ cm} \\ + 5 \text{ cm} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 3 \text{ cm} \\ 3 \text{ cm} \\ + 9 \text{ cm} \\ \hline \end{array}$$

9. Draw a triangle using the lengths in Question 4.
10. Try to draw a triangle for Question 8.
Tell what happens.

Mascot's Mistakes

Mascot put in the blue sums.
Can you change his 6 mistakes?



+	0	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2	2	3	4	5	6	7	8	9	10	11	12
3	3	4	5	6	7	8	9	10	11	12	13
4	4	5	6	7	8	9	10	11	12	13	14
5	5	6	7	8	9	10	11	11	12	14	15
6	6	7	8	9	10	11	12	13	14	16	16
7	7	8	9	10	10	12	13	14	15	16	17
8	8	9	10	11	12	12	15	15	16	17	18
9	9	10	11	12	13	14	15	16	17	18	19
10	10	11	12	13	14	15	16	17	18	19	20




Sunny
High 15°
Low 9°

EXTRA INFORMATION

Sports Page

50¢
Daily









0. A. 40 
B. 7 
C. 9 
For baseball?




0. C is extra.





$$\begin{array}{r} 40 \\ + 7 \\ \hline 47 \end{array}$$





47 for baseball





1. A. 3 
B. 30 
C. 20 
For tennis?

2. A. 8 
B. 9 
C. 9 
For bowling?

3. A. 8 
B. 7 
C. 8 
For basketball?

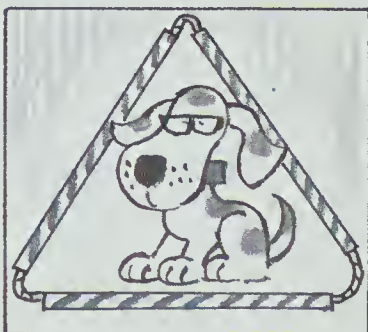
4. A. 6 
B. 3 
C. 9 
D. 7 
For swimming?

5. A. 5 
B. 4 
C. 7 
D. 6 
For hockey?

6. A. 3 
B. 3 
C. 3 
D. 4 
For archery?

Pastime S

Mascot's
dog pen.



1. Make 4 triangle "dog pens" using only 9 straws and tape.
2. Using tape and 6 straws make 4 square dog pens.

Sports Story

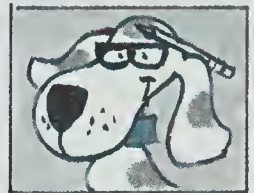
Dear Student,

I enjoy playing many sports. I skied 2 hours on Saturday, 7 hours on Sunday, and 5 hours on Monday.

I also play football with friends. At the last game we had 20 points and only 4 seconds left. My friend Frisky scored 6 points before the buzzer. We plan to have 7 games this month and 8 next month.

My favourite sport is swimming. I can backstroke 6 laps and dog paddle 5 more. Can you dog paddle?

Your helper, Mascot



P.S.

1. How many laps can I swim in all?
2. How many football games will we play?
3. How many hours did I ski one week?
4. After Frisky scored, what was our point total?
5. How many hours did I ski one weekend?

REVIEW

Add.

A3	1.	$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$	2.	$\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$	3.	$\begin{array}{r} 8 \\ + 9 \\ \hline \end{array}$	4.	$\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$	5.	$\begin{array}{r} 7 \\ + 9 \\ \hline \end{array}$
----	----	---	----	---	----	---	----	---	----	---

A4	6.	$\begin{array}{r} 8 \\ 2 \\ + 5 \\ \hline \end{array}$	7.	$\begin{array}{r} 5 \\ 6 \\ + 5 \\ \hline \end{array}$	8.	$\begin{array}{r} 7 \\ 2 \\ + 1 \\ \hline \end{array}$	9.	$\begin{array}{r} 5 \\ 4 \\ + 2 \\ \hline \end{array}$	10.	$\begin{array}{r} 7 \\ 6 \\ + 2 \\ \hline \end{array}$
----	----	--	----	--	----	--	----	--	-----	--

Mascot's Super Bowl Games

COUNTING BY 10'S

Count by 10's by adding another ten each time.
Find these numbers on the chart: 18 28 38 48 58.

Do you see the pattern?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

MASCOT

COUNTING BY 9'S

Find these numbers on the 100 chart:
7, 16, 25, 34, 43, 52, 61, 70, 79.

What pattern do you see?

top

Count on by 10's from:

1. 5 to 95

2. 24 to 94

3. 11 to 91

Count on by 9's from:

4. 8 to 71

5. 19 to 91

6. 6 to 96

Add.

7. $5 + 10$

8. $24 + 10$

9. $41 + 10$

10. $8 + 9$

11. $19 + 9$

12. $16 + 9$

MASCOT

side

UNIT 1

TEST

Add.

1. $60 + 3$

2. $10 + 8$

3.
$$\begin{array}{r} 90 \\ + 8 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 20 \\ + 3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 9 \\ + 10 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 6 \\ + 4 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 3 \\ + 7 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 7 \\ + 8 \\ \hline \end{array}$$

11. How long is the arrow in centimetres?



Add.

12.
$$\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 8 \\ + 6 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 7 \\ + 9 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 9 \\ + 8 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 4 \\ 6 \\ + 4 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 4 \\ 6 \\ + 3 \\ \hline \end{array}$$

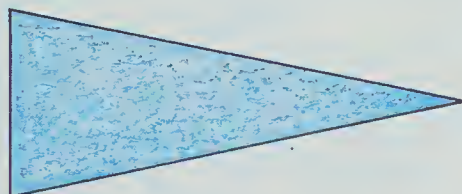
24.
$$\begin{array}{r} 3 \\ 2 \\ + 7 \\ \hline \end{array}$$

25.
$$\begin{array}{r} 6 \\ 2 \\ + 3 \\ \hline \end{array}$$

26.
$$\begin{array}{r} 8 \\ 7 \\ + 2 \\ \hline \end{array}$$

Measure the sides and find the perimeter.

27.



How many balls?

28. 9
8



29. 6
3
6



UNIT 2

SUBTRACTION FACTS



Needle in the Haystack

Haystack A

1.	6	2.	8	3.	3	4.	8
	$- 3$		$- 1$		$+ 2$		$- 2$

5.	4	6.	4	7.	5	8.	4
	$+ 3$		$- 3$		$- 2$		$+ 4$

9.	8	10.	5	11.	5	12.	4
	$- 4$		$- 1$		$- 3$		$- 1$

13.	4	14.	3	15.	7	16.	9
	$- 0$		$+ 3$		$- 2$		$- 4$

Haystack B

1.	7	2.	9	3.	1	4.	9
	$- 4$		$- 2$		$+ 4$		$- 3$

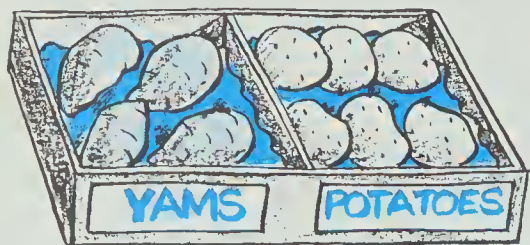
5.	5	6.	9	7.	8	8.	5
	$+ 2$		$- 8$		$- 5$		$+ 3$

9.	7	10.	9	11.	8	12.	9
	$- 3$		$- 5$		$- 6$		$- 6$

13.	6	14.	7	15.	6	16.	8
	$- 2$		$- 5$		$- 1$		$- 3$

Related Facts

Each produce stand gives us 4 facts.



$$\begin{array}{r} 10 \\ - 6 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 6 \\ + 4 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 4 \\ + 6 \\ \hline 10 \end{array}$$



$$\begin{array}{r} 10 \\ - 7 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 7 \\ + 3 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 3 \\ + 7 \\ \hline 10 \end{array}$$

These 3 numbers
can be made into
2 addition facts and
2 subtraction facts.



$$\begin{array}{r} 11 \\ - 9 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 11 \\ - 2 \\ \hline 9 \end{array}$$

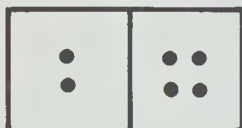
$$\begin{array}{r} 9 \\ + 2 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline 11 \end{array}$$

EXERCISES

Give the two missing subtraction facts.

1.



$$\begin{array}{r} 2 \\ + 4 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 4 \\ + 2 \\ \hline 6 \end{array}$$

2.



$$\begin{array}{r} 6 \\ + 5 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline 11 \end{array}$$

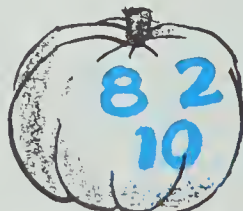
3.



$$\begin{array}{r} 2 \\ + 5 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 5 \\ + 2 \\ \hline 7 \end{array}$$

4.



$$\begin{array}{r} 2 \\ + 8 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 8 \\ + 2 \\ \hline 10 \end{array}$$

PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 10 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 11 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 11 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 11 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 11 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 11 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 11 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 11 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 11 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 11 \\ - 8 \\ \hline \end{array}$$

Show the four related facts for each problem.



Cornucopia

The horn has spilled.

Complete the equations.



1. $11 -$ $= 9$

2. $- 6 = 4$

3. $7 + 3$ $= 10$

4. 5 $5 = 10$

5. $10 - 2 =$

6. $- 8 = 2$

7. $+ 2 = 11$

8. 11 $5 = 6$

9. $11 -$ $= 7$

One Less and Ten Less

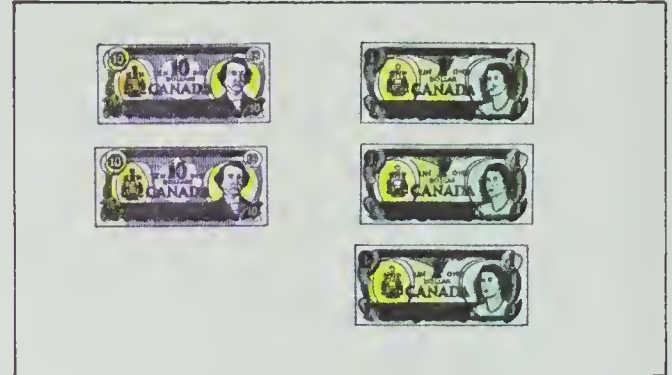
Jim wants to buy 36 squash. He has 23 dollars.



One squash spoils.
35 good squash are left.



$$36 - 1 = 35$$



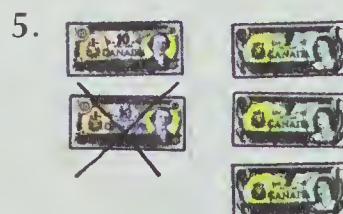
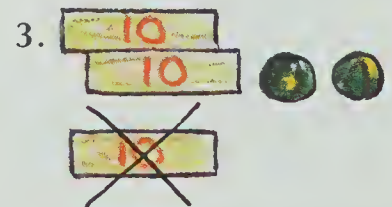
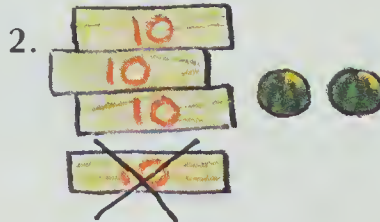
Jim spent 10 dollars.
13 dollars are left.



$$23 - 10 = 13$$

EXERCISES

Write the subtraction equation.



PRACTICE

Subtract.

1. $36 - 1$

2. $25 - 1$

3. $17 - 1$

4. $84 - 1$

5. $36 - 10$

6. $25 - 10$

7. $17 - 10$

8. $84 - 10$

9.
$$\begin{array}{r} 42 \\ - 10 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 63 \\ - 1 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 59 \\ - 10 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 98 \\ - 1 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 9 \\ - 1 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 19 \\ - 10 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 12 \\ - 10 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 51 \\ - 1 \\ \hline \end{array}$$

Look for the pattern. Keep counting!

17. 16 15 14 13 ■ ■ ■ ■ ■ ■

18. 88 87 86 85 ■ ■ ■ ■ ■ ■

19. 92 82 72 62 ■ ■ ■ ■ ■ ■

20. 96 86 76 66 ■ ■ ■ ■ ■ ■

21. 3 13 23 33 ■ ■ ■ ■ ■ ■

22. 90 81 72 63 ■ ■ ■ ■ ■ ■

3 Rs: Reading, wRiting, and aRithmetic

Read the words.

Write the numeral.

Read the numeral.

Write the words.



1. thirty-one

2. twenty-two

3. 21

4. 32

5. forty-six

6. fifty-three

7. 56

8. 43

9. sixty-eight

10. seventy-seven

11. 78

12. 67

13. ninety-eight

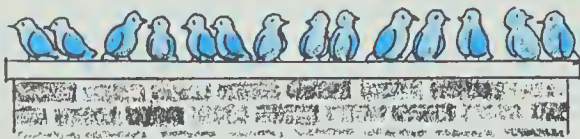
14. eighty-nine

15. 99

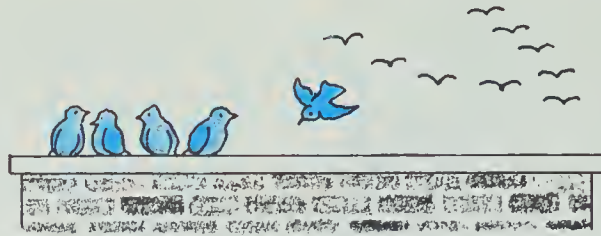
16. 88

Subtraction Comics

9 Less

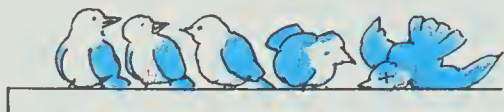


14 birds sit on a wall.



10 start south but one bird falls.

9 are gone and 5 remain.



$$14 - 9 = 5$$

Let us fly this by again.

$$\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$$

Take away 10.

Then add 1.

$$\begin{array}{r} 14 \quad 4 \\ - 10 \quad + 1 \\ \hline 4 \quad 5 \end{array}$$

Think

$$\begin{array}{r} 14 \\ - 9 \\ \hline 5 \end{array}$$

Doubles Bubbles

6	12	7	14	8	16	9	18	10	20
+ 6	- 6	+ 7	- 7	+ 8	- 8	+ 9	- 9	+ 10	- 10
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
12	6	14	7	16	8	18	9	20	10

EXERCISES

Add and subtract.

1. $\begin{array}{r} 15 \\ - 10 \\ \hline \end{array}$ $\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$ $\begin{array}{r} 15 \\ - 9 \\ \hline \end{array}$

2. $\begin{array}{r} 2 \\ + 1 \\ \hline \end{array}$ $\begin{array}{r} 12 \\ - 9 \\ \hline \end{array}$

3. $\begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$ $\begin{array}{r} 18 \\ - 9 \\ \hline \end{array}$

4. $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$ $\begin{array}{r} 16 \\ - 8 \\ \hline \end{array}$

5. $\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$ $\begin{array}{r} 10 \\ - 5 \\ \hline \end{array}$

6. $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ $\begin{array}{r} 14 \\ - 7 \\ \hline \end{array}$

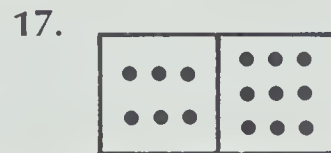
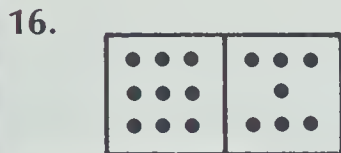
PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 13 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 14 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 3. \quad 12 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 15 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 17 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 10 \\ - 5 \\ \hline \end{array}$$


$$\begin{array}{r} 7. \quad 18 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 16 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 9. \quad 16 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 10. \quad 14 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 11. \quad 12 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 12. \quad 20 \\ - 10 \\ \hline \end{array}$$

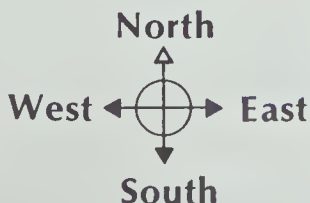
For each give the 4 related facts.




 and  look for a lost acorn.
Who ends up closer to the nut?

TWO BIRDBRAINS

 PATH
4 spaces south
8 east
3 south
5 west
2 north
2 east



	1	2	3	4	5	6	7	8	
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65		67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

 PATH
8 spaces south
9 west
7 north
6 east
3 south
2 west

Decimetre and Centimetre Strips

one decimetre

Use **dm** for decimetre.

$$1 \text{ dm} = 10 \text{ cm}$$

1 dm

1 cm

1 cm

1 dm + 2 cm
equals 12 cm


$$1 \text{ dm} + 6 \text{ cm} = 16 \text{ cm} \quad 2 \text{ dm} + 3 \text{ cm} = 23 \text{ cm} \quad 3 \text{ dm} = 30 \text{ cm}$$

EXERCISES

Measure these strips.

1. 

2. 

3. 

Complete the equations.

4. $1 \text{ dm} + 7 \text{ cm} = \text{🍁} \text{ cm}$

5. $2 \text{ dm} + 7 \text{ cm} = \text{🍁} \text{ cm}$

6. $6 \text{ dm} + 7 \text{ cm} = \text{🍁} \text{ cm}$

7. $\text{🍁} \text{ dm} + 4 \text{ cm} = 24 \text{ cm}$

8. $\text{🍁} \text{ dm} + 4 \text{ cm} = 54 \text{ cm}$

9. $\text{🍁} \text{ dm} + 4 \text{ cm} = 94 \text{ cm}$

10. $2 \text{ dm} + \text{🍁} \text{ cm} = 26 \text{ cm}$

11. $2 \text{ dm} + \text{🍁} \text{ cm} = 29 \text{ cm}$

12. $4 \text{ dm} = \text{🍁} \text{ cm}$

13. $\text{🍁} \text{ dm} = 70 \text{ cm}$

14. $9 \text{ dm} = \text{🍁} \text{ cm}$

PRACTICE

Complete the equations.

1. $5 \text{ dm} + 4 \text{ cm} = \text{leaf} \text{ cm}$
2. $\text{leaf} \text{ dm} + 7 \text{ cm} = 37 \text{ cm}$
3. $9 \text{ dm} + 3 \text{ cm} = \text{leaf} \text{ cm}$
4. $2 \text{ dm} + \text{leaf} \text{ cm} = 25 \text{ cm}$
5. $5 \text{ dm} = \text{leaf} \text{ cm}$
6. $\text{leaf} \text{ dm} + 2 \text{ cm} = 52 \text{ cm}$
7. $8 \text{ dm} + \text{leaf} \text{ cm} = 82 \text{ cm}$
8. $\text{leaf} \text{ dm} = 60 \text{ cm}$

9. Copy and complete the table.

	ESTIMATE	MEASURE
length of my book	leaf dm	leaf dm + leaf cm = leaf cm
width of my book	leaf dm	leaf dm + leaf cm = leaf cm
length of my desk	leaf dm	leaf dm + leaf cm = leaf cm
width of my desk	leaf dm	leaf dm + leaf cm = leaf cm

10. Put these in a large picture. Use a centimetre ruler.

a tree 17 cm tall

a road 29 cm long

a car 1 dm long

a fence 21 cm long

a truck 11 cm tall

a bird 5 cm wide

REVIEW

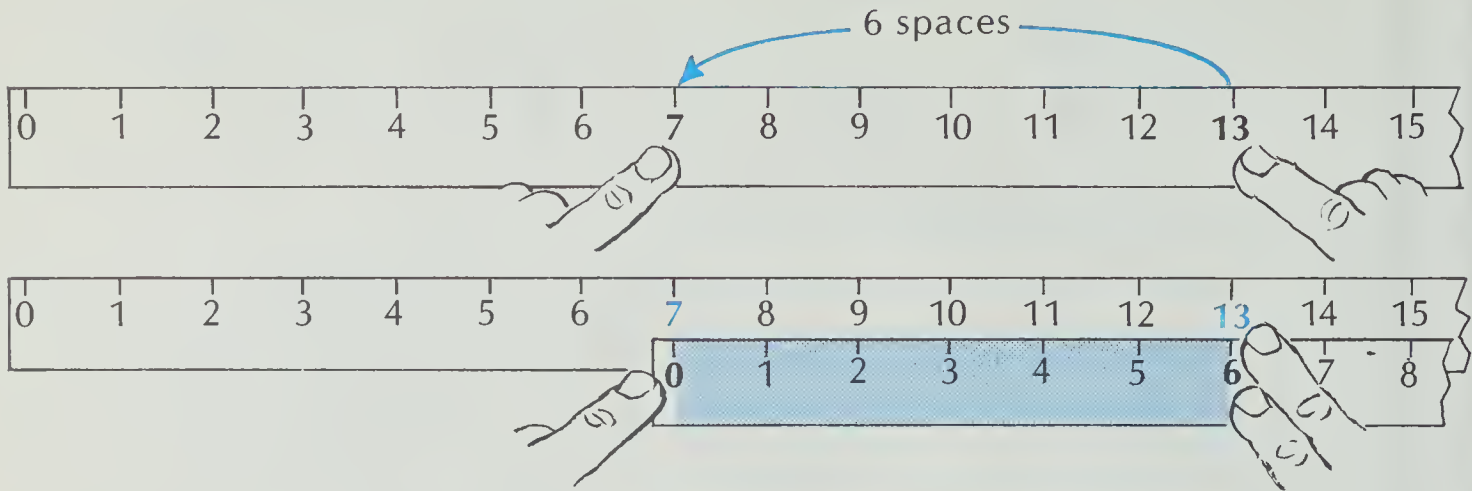
Subtract.

- | | | | | | | | | | | |
|----|-----|---|-----|--|-----|---|-----|--|-----|---|
| A5 | 1. | $\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$ | 2. | $\begin{array}{r} 11 \\ - 5 \\ \hline \end{array}$ | 3. | $\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$ | 4. | $\begin{array}{r} 11 \\ - 7 \\ \hline \end{array}$ | 5. | $\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$ |
| | | | | | | | | | | |
| A6 | 6. | $\begin{array}{r} 17 \\ - 10 \\ \hline \end{array}$ | 7. | $\begin{array}{r} 17 \\ - 1 \\ \hline \end{array}$ | 8. | $\begin{array}{r} 24 \\ - 10 \\ \hline \end{array}$ | 9. | $\begin{array}{r} 24 \\ - 1 \\ \hline \end{array}$ | 10. | $\begin{array}{r} 98 \\ - 10 \\ \hline \end{array}$ |
| | | | | | | | | | | |
| A7 | 11. | $\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$ | 12. | $\begin{array}{r} 12 \\ - 9 \\ \hline \end{array}$ | 13. | $\begin{array}{r} 17 \\ - 9 \\ \hline \end{array}$ | 14. | $\begin{array}{r} 14 \\ - 7 \\ \hline \end{array}$ | 15. | $\begin{array}{r} 16 \\ - 8 \\ \hline \end{array}$ |
| | | | | | | | | | | |

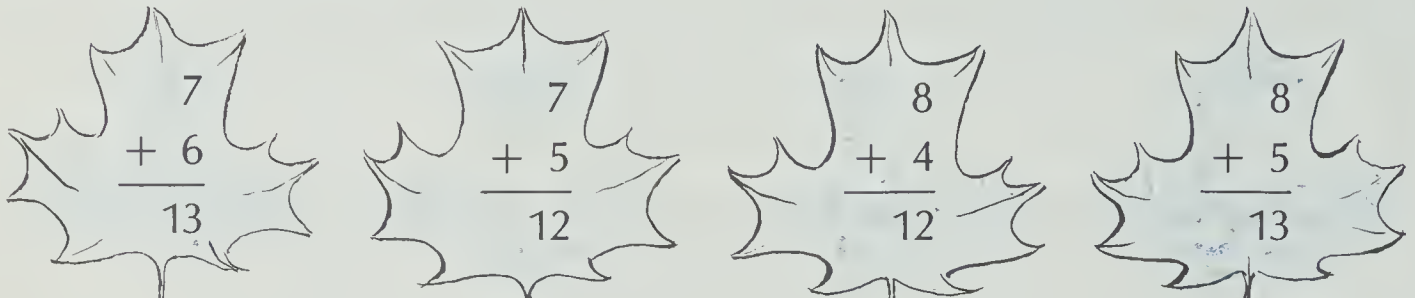
Subtracting from 12 and 13

Subtraction helpers can be handy.

$$13 - 6 = 7$$



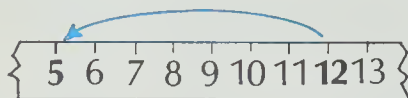
Don't **leave** these out!



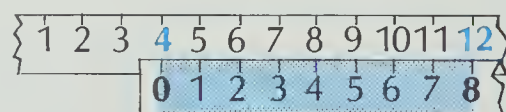
EXERCISES

Give the subtraction equations.

1.



2.



Give two related subtraction equations for each:

3.

$$\begin{array}{r} 7 \\ + 6 \\ \hline 13 \end{array}$$

4.

$$\begin{array}{r} 7 \\ + 5 \\ \hline 12 \end{array}$$

5.

$$\begin{array}{r} 8 \\ + 4 \\ \hline 12 \end{array}$$

6.

$$\begin{array}{r} 8 \\ + 5 \\ \hline 13 \end{array}$$

PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 13 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 13 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 3. \quad 12 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 12 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 13 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 13 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 12 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 8. \quad 12 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 9. \quad 13 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 10. \quad 13 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 11. \quad 12 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 12. \quad 12 \\ - 9 \\ \hline \end{array}$$

Copy and complete the tables.

13.

—	4	6	7	5	8
12					

14.

—	4	6	8	5	7
13					

Handy Table

An addition table can help you subtract.

$$13 - 6$$

Put your finger on 6.
Slide to 13.
Look up and see 7.

+	5	6	7	8	9
5	10	11	12	13	14
6	11	12	13	14	15
7	12	13	14	15	16
8	13	14	15	16	17
9	14	15	16	17	18

Use the table to subtract.

$$\begin{array}{r} 1. \quad 12 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 2. \quad 13 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 3. \quad 17 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 4. \quad 15 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 5. \quad 14 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 6. \quad 16 \\ - 8 \\ \hline \end{array}$$

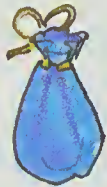
Ordinal Numbers

Autumn's Orders

- **First**, a cigar box for pencils and candy.
- Gym bag is **second**, a small one is dandy.
- **Third**, nature walks and friendly play-fighting
- Strengthen your arms for the **fourth**, which is writing.
- **Fifth**, some long pants and some soft woollen sweaters
- That make leafy-landings, as **sixth**, so much better.
- **Seventh**, lazy smoke stirred aloft by a rake,
- Crosses the airways that, **eighth**, the birds take.
- **Ninth** swells a pumpkin — the stoutest you've seen,
- Greeting this Autumn, as **tenth**, with a grin.



cigar
box



gym
bag



nature
walks



writing sweater



leaf
pile



smoke



birds



pumpkin



grin

EXERCISES

1. What is sixth?

2. What is fourth?

3. What is third?

4. What is tenth?

5. What is fifth?

6. What is eighth?

Complete with an ordinal number:

7. The gym strip is ■.

8. The smoke is ■.

9. The pumpkin is ■.

10. The cigar box is ■.

11. The sweater is ■.

12. The birds are ■.

PRACTICE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

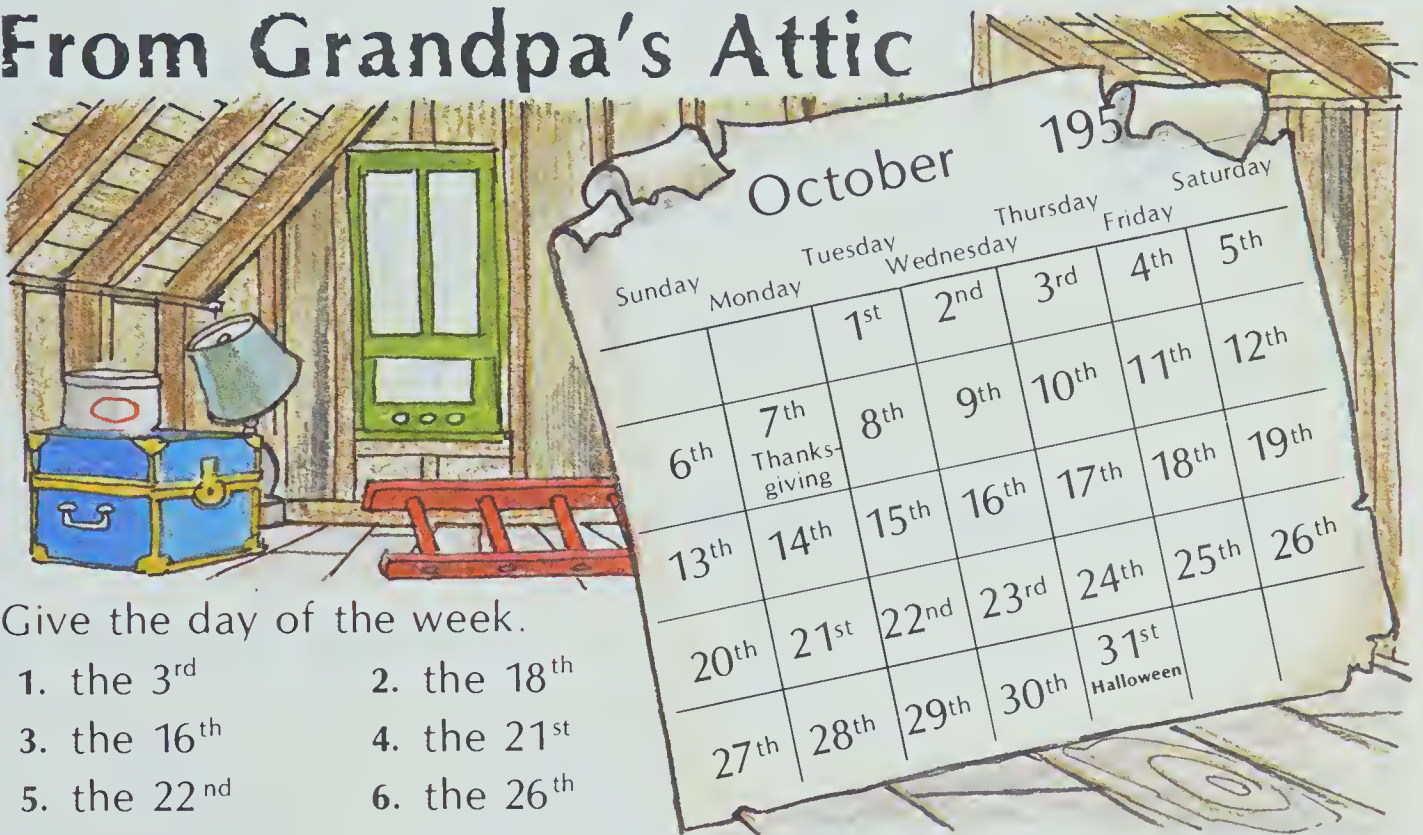
Which letter?

1. thirteenth
2. twenty-sixth
3. ninth
4. nineteenth
5. twenty-first
6. fifteenth
7. twenty-fourth
8. twelfth

Which ordinal number?

9. K
10. N
11. Q
12. V
13. W
14. Y

From Grandpa's Attic



Give the day of the week.

1. the 3rd
2. the 18th
3. the 16th
4. the 21st
5. the 22nd
6. the 26th

Give the date.

7. the first Monday
8. Halloween
9. the fourth Friday
10. Thanksgiving
11. the second Sunday
12. the third Tuesday
13. Make an October calendar for this year.
Show the special dates.

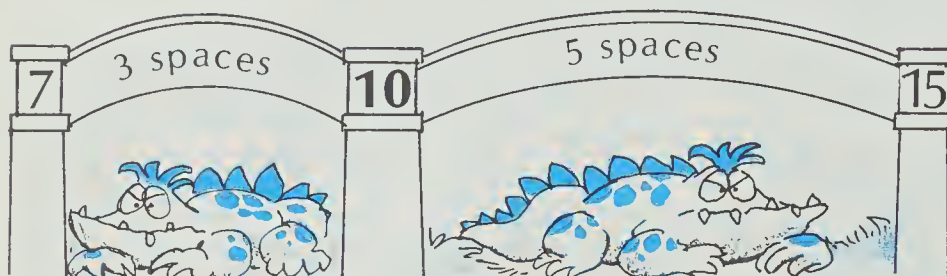
Bridging Subtraction

We have used 10 in many subtraction equations.
Let 10 help you **bridge** the subtraction dragons.



$$\begin{array}{r} \text{To Do} \\ 14 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Think} \\ 4 \\ + 2 \\ \hline 6 \end{array}$$



$$\begin{array}{r} \text{To Do} \\ 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Think} \\ 5 \\ + 3 \\ \hline 8 \end{array}$$

EXERCISES

Subtract.

$$\begin{array}{r} 1. \quad 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 14 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 15 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 17 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 14 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 15 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 17 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 14 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \text{ To Do} \\ 14 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Think} \\ \blacksquare \\ + \blacksquare \\ \hline \end{array}$$

$$\begin{array}{r} 12. \text{ To Do} \\ 15 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Think} \\ \blacksquare \\ + \blacksquare \\ \hline \end{array}$$

$$\begin{array}{r} 13. \text{ To Do} \\ 16 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Think} \\ \blacksquare \\ + \blacksquare \\ \hline \end{array}$$

PRACTICE

Subtract.

- | | | | | | |
|--|--|--|--|--|--|
| 1. $\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$ | 2. $\begin{array}{r} 12 \\ - 7 \\ \hline \end{array}$ | 3. $\begin{array}{r} 15 \\ - 8 \\ \hline \end{array}$ | 4. $\begin{array}{r} 14 \\ - 7 \\ \hline \end{array}$ | 5. $\begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$ | 6. $\begin{array}{r} 15 \\ - 7 \\ \hline \end{array}$ |
| 7. $\begin{array}{r} 16 \\ - 7 \\ \hline \end{array}$ | 8. $\begin{array}{r} 13 \\ - 6 \\ \hline \end{array}$ | 9. $\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$ | 10. $\begin{array}{r} 15 \\ - 6 \\ \hline \end{array}$ | 11. $\begin{array}{r} 13 \\ - 7 \\ \hline \end{array}$ | 12. $\begin{array}{r} 11 \\ - 6 \\ \hline \end{array}$ |
| 13. $\begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$ | 14. $\begin{array}{r} 16 \\ - 8 \\ \hline \end{array}$ | 15. $\begin{array}{r} 12 \\ - 6 \\ \hline \end{array}$ | 16. $\begin{array}{r} 15 \\ - 9 \\ \hline \end{array}$ | 17. $\begin{array}{r} 12 \\ - 5 \\ \hline \end{array}$ | 18. $\begin{array}{r} 17 \\ - 9 \\ \hline \end{array}$ |
| 19. $\begin{array}{r} 14 \\ - 5 \\ \hline \end{array}$ | 20. $\begin{array}{r} 16 \\ - 9 \\ \hline \end{array}$ | 21. $\begin{array}{r} 13 \\ - 5 \\ \hline \end{array}$ | 22. $\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$ | 23. $\begin{array}{r} 18 \\ - 9 \\ \hline \end{array}$ | 24. $\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$ |
| 25. $\begin{array}{r} 11 \\ - 4 \\ \hline \end{array}$ | 26. $\begin{array}{r} 12 \\ - 3 \\ \hline \end{array}$ | 27. $\begin{array}{r} 13 \\ - 4 \\ \hline \end{array}$ | 28. $\begin{array}{r} 11 \\ - 2 \\ \hline \end{array}$ | 29. $\begin{array}{r} 12 \\ - 4 \\ \hline \end{array}$ | 30. $\begin{array}{r} 11 \\ - 3 \\ \hline \end{array}$ |

Defeated Dragons

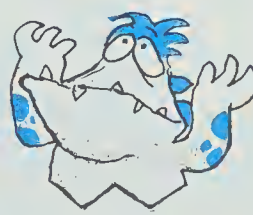
Match each demon to the feet that fit.



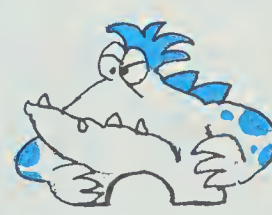
1.



2.



3.



4.



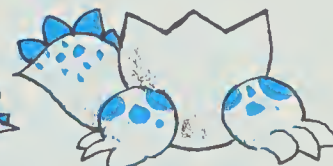
A.



B.



C.



D.

Stories and Pictures

For adding, think
together or to gather.



$$6 + 4 = 10$$

For subtracting, think
a part or to part.

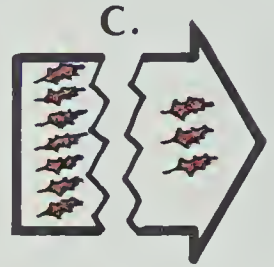
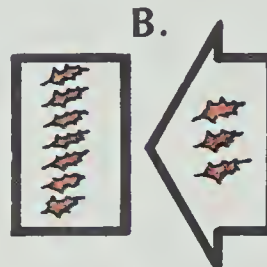


$$10 - 4 = 6$$

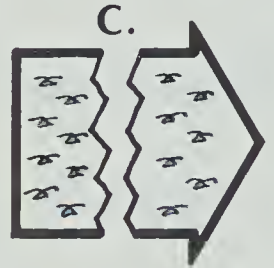
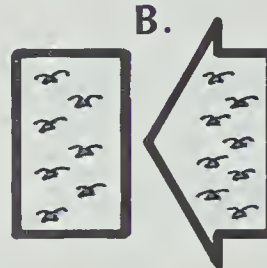
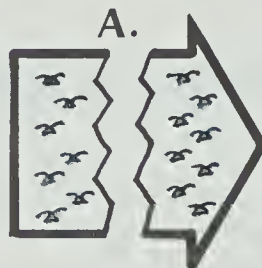
Pick the correct picture.

Show the correct equation.

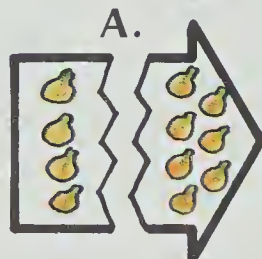
1. 10 leaves
3 blow away.
How many left?



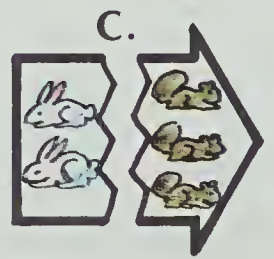
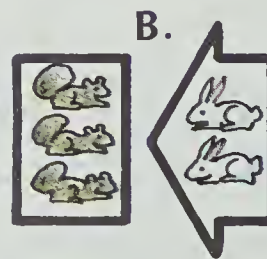
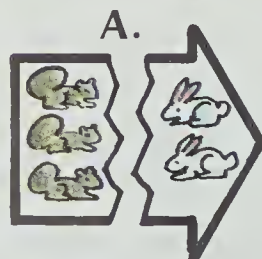
2. 7 birds
8 more come.
How many now?



3. 11 squash
4 lost
How many now?



4. 3 squirrels
2 rabbits
How many animals?



Drawing Pictures

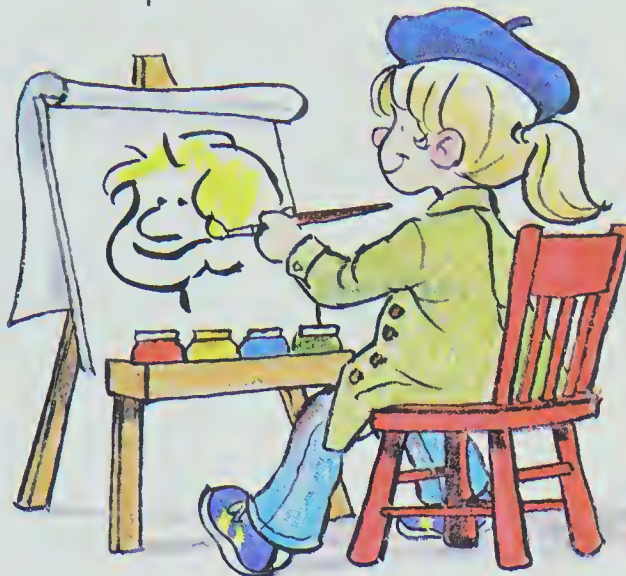
Draw the picture. Then give the equation.

1. 14 pumpkins
8 are carved.
How many are not?

2. 9 clown masks
5 demon masks
How many masks?

3. 13 witches
5 without brooms
How many with brooms?

4. 16 children
8 costumes
How many without?



Problem
Solving

REVIEW

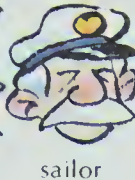
Subtract.

A8

- | | | | | | | | | | | | |
|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|
| 1. | 12 | 2. | 13 | 3. | 12 | 4. | 13 | 5. | 12 | 6. | 13 |
| | — 5 | | — 6 | | — 7 | | — 4 | | — 8 | | — 5 |

N2

7. Who is first?
8. What is sixth?
9. Who is fourth?



Subtract.

A9

- | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10. | 16 | 11. | 15 | 12. | 14 | 13. | 17 | 14. | 15 | 15. | 13 |
| | — 7 | | — 8 | | — 6 | | — 8 | | — 7 | | — 6 |

TEST

UNIT 2

Subtract.

1.
$$\begin{array}{r} 10 \\ - 7 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 11 \\ - 8 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 11 \\ - 4 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 11 \\ - 7 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 13 \\ - 1 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 13 \\ - 10 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 27 \\ - 1 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 27 \\ - 10 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 10 \\ - 1 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 15 \\ - 9 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 16 \\ - 8 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 14 \\ - 7 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 18 \\ - 9 \\ \hline \end{array}$$

Complete the equations.

16. $2 \text{ dm} = \blacksquare \text{ cm}$

17. $2 \text{ dm} + 3 \text{ cm} = \blacksquare \text{ cm}$

Subtract.

18.
$$\begin{array}{r} 12 \\ - 3 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 13 \\ - 5 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 13 \\ - 6 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 12 \\ - 5 \\ \hline \end{array}$$

23. Which letter is eleventh?

24. Which letter is 16th?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Subtract.

25.
$$\begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$$

26.
$$\begin{array}{r} 15 \\ - 7 \\ \hline \end{array}$$

27.
$$\begin{array}{r} 16 \\ - 7 \\ \hline \end{array}$$

28.
$$\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$$

29.
$$\begin{array}{r} 14 \\ - 6 \\ \hline \end{array}$$

30. 13 leaves.

6 drop.

How many left?

31. 8 blackbirds.

5 crows.

How many birds?

ADDITION

Add.

- | | | | | |
|--|--|--|--|--|
| 1. $\begin{array}{r} 4 \\ + 6 \\ \hline \end{array}$ | 2. $\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$ | 3. $\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$ | 4. $\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$ | 5. $\begin{array}{r} 6 \\ + 5 \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 8 \\ + 6 \\ \hline \end{array}$ | 7. $\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$ | 8. $\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$ | 9. $\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$ | 10. $\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 9 \\ + 8 \\ \hline \end{array}$ | 12. $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$ | 13. $\begin{array}{r} 3 \\ + 9 \\ \hline \end{array}$ | 14. $\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$ | 15. $\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$ | 17. $\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$ | 18. $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ | 19. $\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$ | 20. $\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$ |
| 21. $\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$ | 22. $\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$ | 23. $\begin{array}{r} 0 \\ + 9 \\ \hline \end{array}$ | 24. $\begin{array}{r} 7 \\ + 9 \\ \hline \end{array}$ | 25. $\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$ |
| 26. $\begin{array}{r} 10 \\ + 7 \\ \hline \end{array}$ | 27. $\begin{array}{r} 50 \\ + 3 \\ \hline \end{array}$ | 28. $\begin{array}{r} 9 \\ + 10 \\ \hline \end{array}$ | 29. $\begin{array}{r} 8 \\ + 70 \\ \hline \end{array}$ | 30. $\begin{array}{r} 10 \\ + 6 \\ \hline \end{array}$ |
| 31. $\begin{array}{r} 4 \\ 1 \\ + 3 \\ \hline \end{array}$ | 32. $\begin{array}{r} 5 \\ 5 \\ + 8 \\ \hline \end{array}$ | 33. $\begin{array}{r} 6 \\ 2 \\ + 4 \\ \hline \end{array}$ | 34. $\begin{array}{r} 9 \\ 2 \\ + 8 \\ \hline \end{array}$ | 35. $\begin{array}{r} 5 \\ 7 \\ + 4 \\ \hline \end{array}$ |

36. How many balls?

37. How many things
for golf?

6 basketballs
9 golf clubs
9 golf balls

UNIT 3

NUMERALS TO 9999



fire dragon

troll

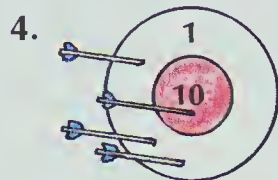
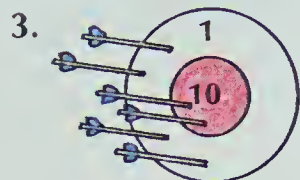
fair

unicorn

elf

Fact and Fantasy

Write in standard form.



7. thirty-six

8. ninety-two

9. sixty-four

10. fifty-three

Finish counting.

11. 75 76 77 ■ ■ ■ ■ 82

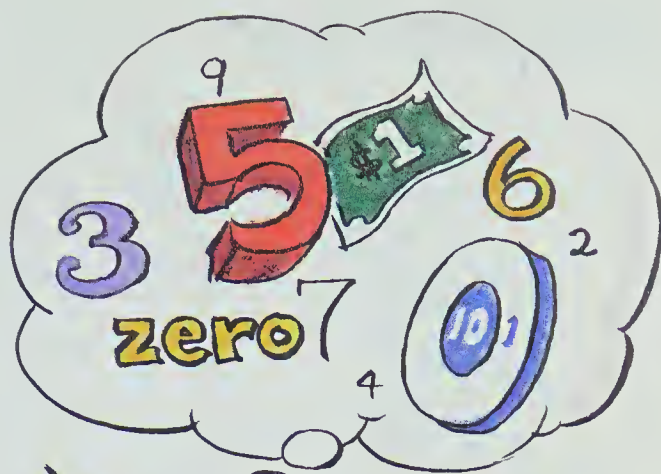
12. 34 35 36 ■ ■ ■ ■ 41

13. 33 32 31 ■ ■ ■ ■ 26

14. 64 63 62 ■ ■ ■ ■ 57

15. 26 36 46 ■ ■ ■ ■ 96

16. 5 15 25 ■ ■ ■ ■ 75



True and False

Use = to make **true** number statements.

1. $20 + 6$

2. $40 + 3$

3. $6 + 30$

4. $7 + 90$

5. 3 tens 2 ones

6. 1 ten 6 ones

7. 3 ones 8 tens

8. 7 ones 3 tens

9. $24 + 1$

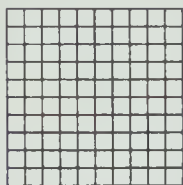
10. $37 + 1$

11. $52 + 10$

12. $27 + 10$

Hundreds

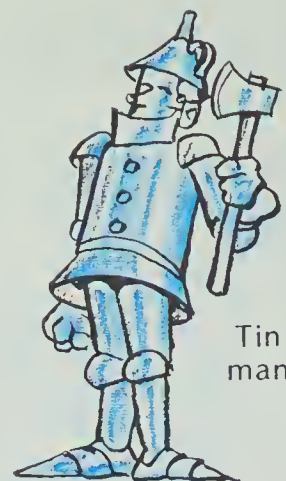
hundred
100



ten
10



one
1



Tin man

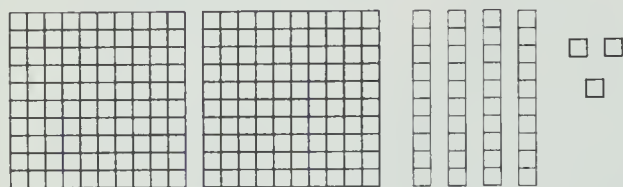
$$1 \text{ hundred} = 10 \text{ tens}$$

$$100 = 10 \text{ tens}$$

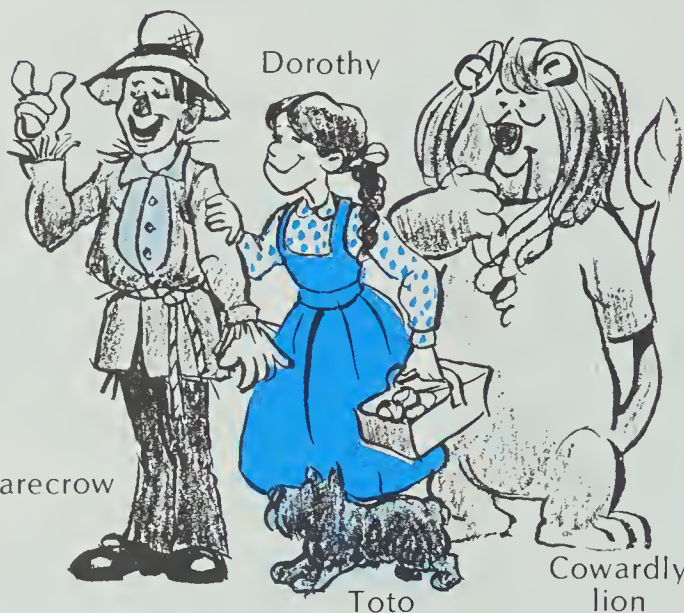
$$1 \text{ ten} = 10 \text{ ones}$$

$$10 = 10 \text{ ones}$$

two hundred forty-three



243



Scarecrow

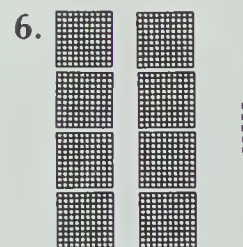
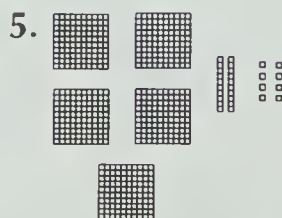
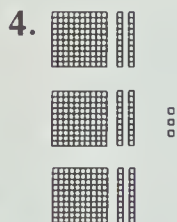
Dorothy

Toto

Cowardly lion

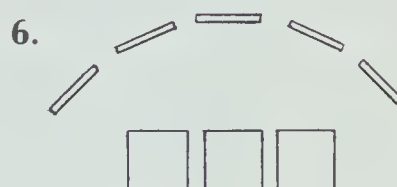
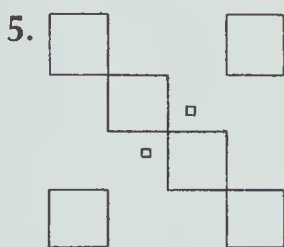
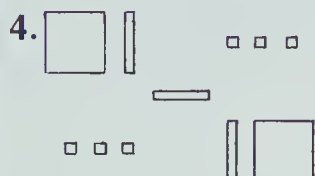
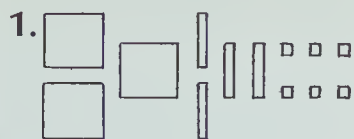
EXERCISES

Write in standard form.



PRACTICE

Write in standard form.



7. three hundred fifty-one

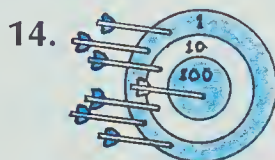
8. seven hundred twenty-six

9. nine hundred eleven

10. two hundred five

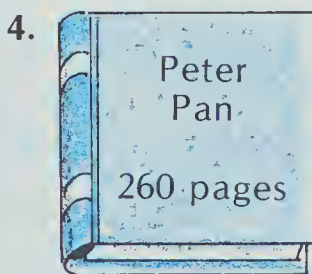
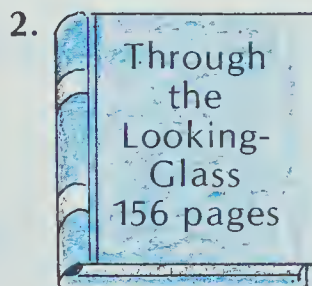
11. five hundred thirty

12. one hundred nine



Four Favourite Fantasies

Write in words how many pages.



Counting

To count by ones add another . .

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	3	8
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	3	9
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	4	0
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1	4	1

We traded 10 ones for 1 ten.



<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2	9	8
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2	9	9
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	3	0	0
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	3	0	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	3	0	2

First, we traded 10 for 1 .

Then we traded 10 for 1 .



Forward by ones.

167 168 169 170

Backward by ones.

492 491 490 489



Forward by tens.

167 177 187 197

Backward by tens.

492 482 472 462

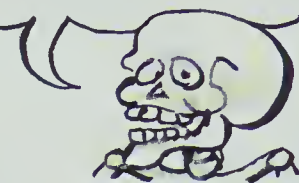


Forward by hundreds.

167 267 367 467

Backward by hundreds.

492 392 292 192



EXERCISES

Finish counting.

1.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	3	9	8
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	3	9	9
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			

2. 267 268 272

3. 192 193 197

4. 497 498 502

5. 230 240 280

6. 205 305 705

PRACTICE

Count by **ones**.

1. from 96 to 103
2. from 185 to 192
3. from 297 to 304
4. from 332 to 339
5. from 436 to 443
6. from 587 to 594
7. from 695 to 702
8. from 762 to 769
9. from 992 to 999
10. backward from 449 to 442
11. backward from 897 to 890
12. backward from 183 to 176
13. backward from 104 to 97
14. backward from 405 to 398
15. backward from 634 to 627

Count by **tens**.

16. from 125 to 195
17. from 260 to 330
18. from 782 to 852
19. backward from 251 to 181
20. backward from 736 to 666

Count by **hundreds**.

21. from 100 to 800
22. from 206 to 906
23. from 124 to 824
24. backward from 907 to 207
25. backward from 730 to 30

Cross-Counting

Copy the squares.

Try to find patterns to complete them.

157	158	
257	258	
357		

135	235	
	245	
	255	

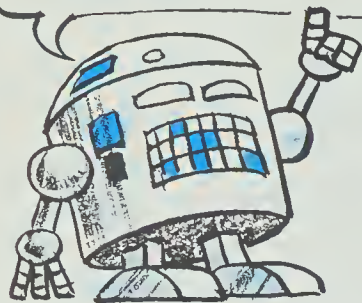
769		789
771		791

Numerals to 999

Listen to the space robots talking about numerals.



Counting on!
100, 200, 210, 220, 230, 231
We have **231** spacemen in the sky.



231, 124, and 315 are in **standard** form.

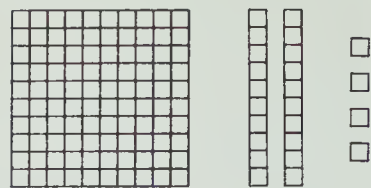
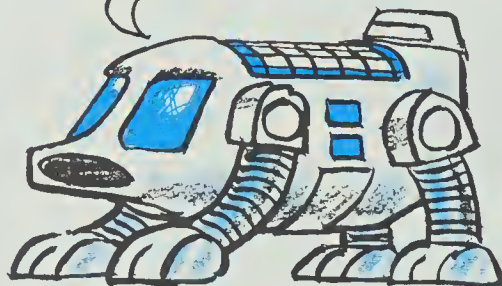
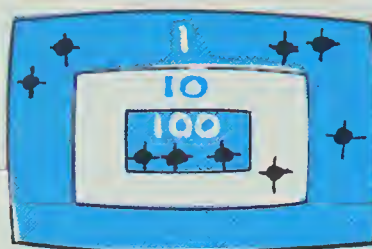


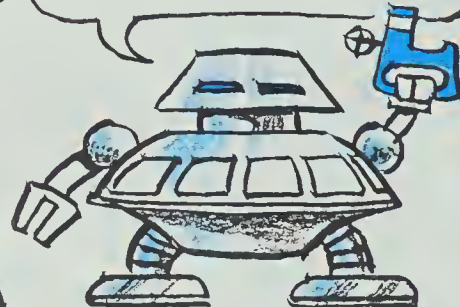
Table Form

Hundreds	Tens	Ones
1	2	4

I have **124** energy cells.

Expanded Form
 $300 + 10 + 5 = 315$
I scored **315** points with my ray gun.



EXERCISES

Write in **standard** form.

1.

hundreds	tens	ones
5	6	8

2.

hundreds	tens	ones
1	6	2

3.

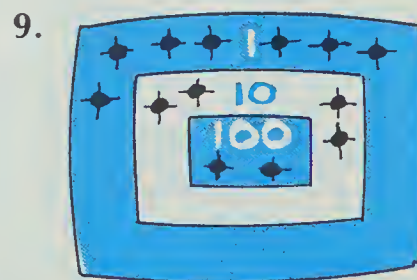
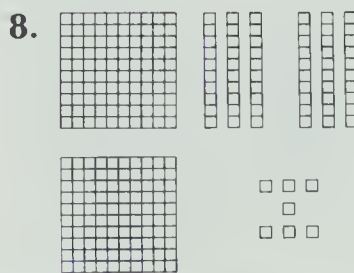
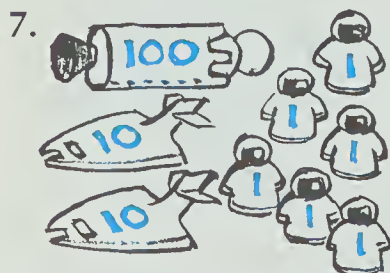
100s	10s	1s
4	7	2

4. $200 + 30 + 6$

5. $700 + 20 + 4$

6. $900 + 60 + 7$

Write in **expanded** form and **standard** form.



PRACTICE

Write in standard form.

$$1. \quad 100 + 60 + 7$$

2. $200 + 90 + 2$

3. $8 + 70 + 500$

4. $9 + 30 + 100$

5. $30 + 600 + 5$

6. $50 + 700 + 6$

7. $500 + 8$

8. $600 + 30$

9. $100 + 4$


10.  Hundreds 6, Tens 7, Ones 2

11.  Hundreds Tens Ones
3 0 6

12.  Hundreds Tens Ones
7 8 0

13. 

14. 

15. 

16.  Tens: 2, Hundreds: 5, Ones: 6

17.  Hundreds: 6, Ones: 8

18.  Hundreds Tens

Complete the equation.

19. $200 + \blacksquare + 7 = 267$

20. $300 + 80 + \blacksquare = 385$

21. $\blacksquare + 20 + 8 = 728$


22. $726 = 20 + 700 + \blacksquare$

23. $835 = 5 + 800 + \blacksquare$

24. $613 = 10 + 3 + \blacksquare$

Count on! Circle the last number.

25.  

26. 

Computer Tutor

Add ten.

IN	OUT
368	378
250	?
631	?
190	?
892	?

How many hundreds?

IN	OUT
762	?
345	?
627	?
21	?
902	?

Add 100.

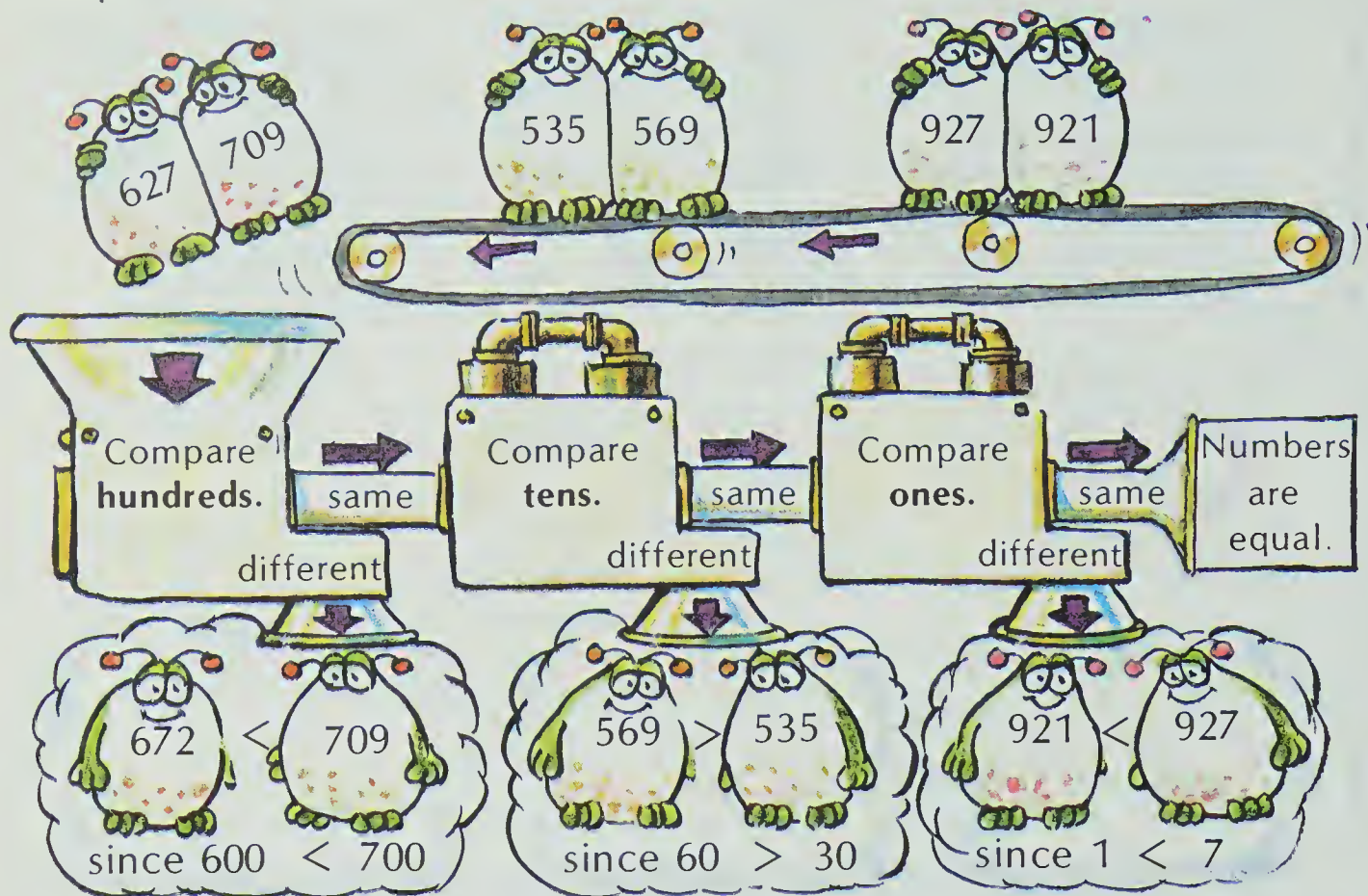
IN	OUT
200	300
170	?
506	?
235	?
752	?

Comparing

$20 < 40$
20 is **less** than 40

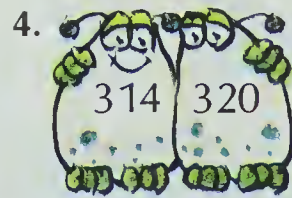
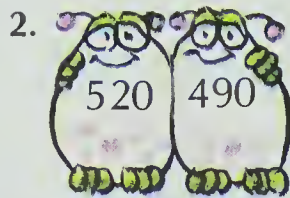
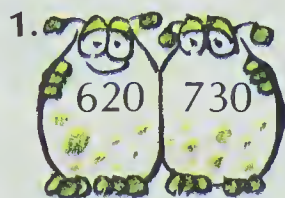
$700 > 300$
700 is **greater** than 300

Compare these numbers with the monster machine.



EXERCISES

Which is greater?



5. 68 53

6. 428 98

7. 59 53

8. 650 657

Use $>$ or $<$.

9. 520 • 620

10. 170 • 150

11. 702 • 90

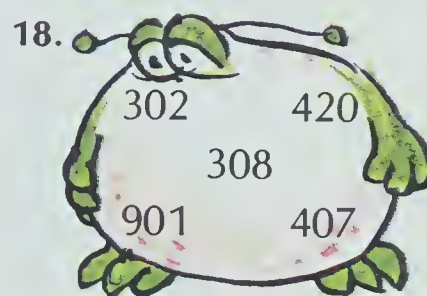
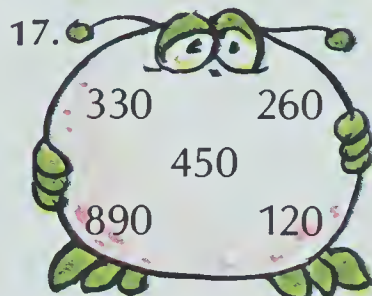
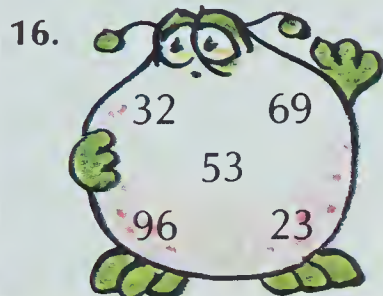
12. 603 • 630

PRACTICE

Use $<$, $>$, or $=$ to make true statements.

1. $250 \bullet 230$
2. $78 \bullet 83$
3. $120 \bullet 90$
4. $306 \bullet 309$
5. $709 \bullet 800$
6. $568 \bullet 590$
7. $307 \bullet 209$
8. $78 \bullet 103$
9. $206 \bullet 199$
10. $452 \bullet 450$
11. $781 \bullet 780$
12. $342 \bullet 542$
13. $80 + 7 \bullet 78$
14. $300 + 9 \bullet 309$
15. $60 + 100 + 3 \bullet 613$

List the numerals from least to greatest.



REVIEW

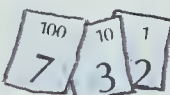
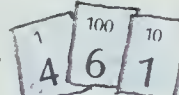
Write in standard form.

- N3 1.  2.  3. three hundred six

Finish counting.

- N4 4. 737 738 ■ ■ 741 5. 498 499 ■ ■ 502
6. 737 747 ■ ■ 777 7. 498 598 ■ ■ 898

Write in standard form.

- N5 8. $300 + 20 + 6$ 9. $20 + 900 + 2$ 10.  11. 

Use $<$ or $>$.

- N6 12. $63 \bullet 75$ 13. $186 \bullet 181$ 14. $235 \bullet 401$ 15. $398 \bullet 389$

Metres

Decimetres

Centimetres

A **metre** is 10 decimetres long.

A **metre** is 100 centimetres long.

Use **m** for metre.

Is the girl over 1 m tall?



Is the Sasquatch really 3 m tall?

$$3 \text{ m} = 300 \text{ cm}$$

$$3 \text{ m} + 6 \text{ dm} = 360 \text{ cm}$$

$$3 \text{ m} + 2 \text{ cm} = 302 \text{ cm}$$

$$3 \text{ m} + 6 \text{ dm} + 2 \text{ cm} = 362 \text{ cm}$$

EXERCISES

How many centimetres in all? Complete the equations.

1. $2 \text{ m} = \blacksquare \text{ cm}$ 2. $2 \text{ m} + 6 \text{ dm} = \blacksquare \text{ cm}$ 3. $2 \text{ m} + 6 \text{ dm} + 4 \text{ cm} = \blacksquare \text{ cm}$

4. $7 \text{ m} = \blacksquare \text{ cm}$ 5. $7 \text{ m} + 2 \text{ cm} = \blacksquare \text{ cm}$ 6. $7 \text{ m} + 5 \text{ dm} + 2 \text{ cm} = \blacksquare \text{ cm}$

7. $1 \text{ m} = \blacksquare \text{ cm}$ 8. $1 \text{ m} + 6 \text{ dm} = \blacksquare \text{ cm}$ 9. $1 \text{ m} + 6 \text{ dm} + 7 \text{ cm} = \blacksquare \text{ cm}$

10. $9 \text{ m} = \blacksquare \text{ cm}$ 11. $9 \text{ m} + 2 \text{ cm} = \blacksquare \text{ cm}$ 12. $9 \text{ m} + 4 \text{ dm} + 2 \text{ cm} = \blacksquare \text{ cm}$

13. $6 \text{ m} = \blacksquare \text{ cm}$ 14. $6 \text{ m} + 5 \text{ cm} = \blacksquare \text{ cm}$ 15. $6 \text{ m} + 0 \text{ dm} + 5 \text{ cm} = \blacksquare \text{ cm}$

PRACTICE

Complete the equations.

1. $4 \text{ m} = \blacksquare \text{ cm}$
2. $8 \text{ m} = \blacksquare \text{ cm}$
3. $5 \text{ m} = \blacksquare \text{ cm}$
4. $3 \text{ m} + 7 \text{ dm} = \blacksquare \text{ cm}$
5. $9 \text{ m} + 3 \text{ dm} + 6 \text{ cm} = \blacksquare \text{ cm}$
6. $8 \text{ m} + 4 \text{ cm} = \blacksquare \text{ cm}$
7. $1 \text{ m} + 2 \text{ dm} + 5 \text{ cm} = \blacksquare \text{ cm}$
8. $7 \text{ m} + 3 \text{ dm} = \blacksquare \text{ cm}$
9. $4 \text{ m} + 0 \text{ dm} + 4 \text{ cm} = \blacksquare \text{ cm}$
10. $5 \text{ dm} + 3 \text{ cm} = \blacksquare \text{ cm}$
11. $8 \text{ m} + 4 \text{ dm} + 0 \text{ cm} = \blacksquare \text{ cm}$
12. $9 \text{ m} + 0 \text{ dm} = \blacksquare \text{ cm}$
13. $5 \text{ m} + 0 \text{ dm} + 0 \text{ cm} = \blacksquare \text{ cm}$
14. Complete the table. Use strips. Check with metric tape.

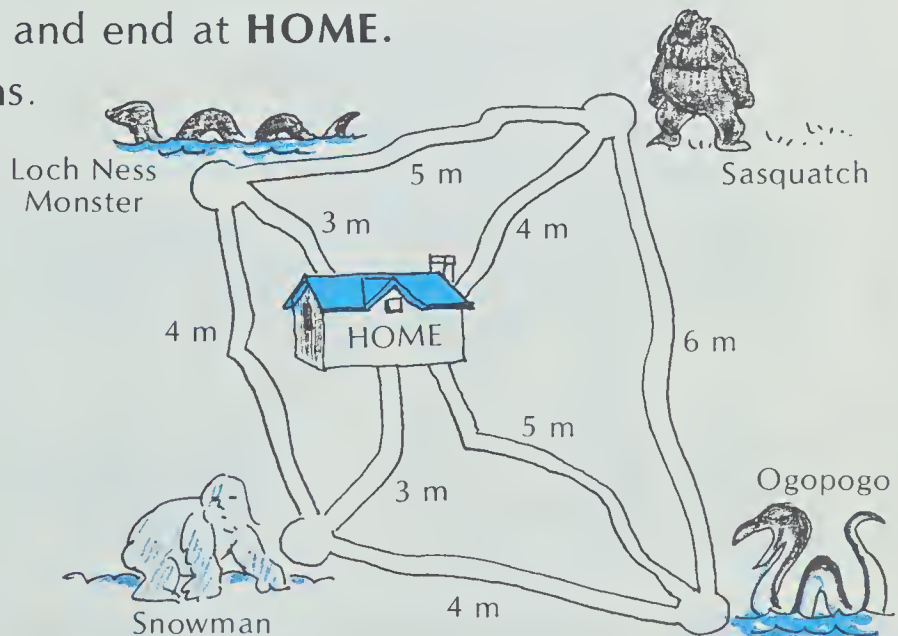
	Estimate	Measure
width of room	$\blacksquare \text{ m}$	$\blacksquare \text{ m} + \blacksquare \text{ dm} + \blacksquare \text{ cm} = \blacksquare \text{ cm}$
length of room	$\blacksquare \text{ m}$	$\blacksquare \text{ m} + \blacksquare \text{ dm} + \blacksquare \text{ cm} = \blacksquare \text{ cm}$
length of chalkboard	$\blacksquare \text{ m}$	$\blacksquare \text{ m} + \blacksquare \text{ dm} + \blacksquare \text{ cm} = \blacksquare \text{ cm}$
length of coat rack	$\blacksquare \text{ m}$	$\blacksquare \text{ m} + \blacksquare \text{ dm} + \blacksquare \text{ cm} = \blacksquare \text{ cm}$

Creature Hunt

Visit the creatures. Begin and end at **HOME**.

Describe the shortest paths.

1. Snowman and Sasquatch
2. Loch Ness Monster, Ogopogo, and Sasquatch
3. Snowman, Ogopogo, and Loch Ness Monster



Dollars and Cents

ten dollars

one dollar

ten cents

one cent



\$62.41

62 dollars and 41 cents

Dracula

175¢

\$1.75

1 dollar and 75 cents

EXERCISES

Use the dollar sign \$.

1.

2.

3.

275¢

the Blob

4.

5.

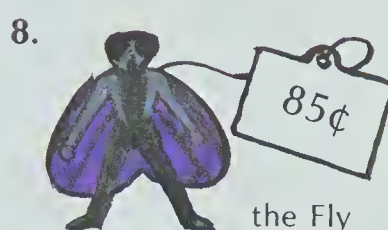
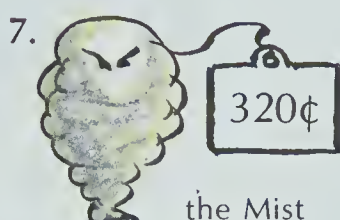
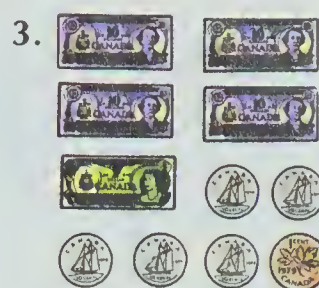
6.

75¢

Frankenstein

PRACTICE

Use the dollar sign \$.



Complete these equations.

9. =

10. =

11. =

12. 5 =

13. 3 =

14. 2 =

Creepy Counting

Help the night monsters count their money.

Mummy counts with 1¢'s.

1. from \$4.87 to \$5.02

2. from \$38.95 to \$39.10

Vampire Bat counts with 10¢'s

3. from \$4.87 to \$6.37

4. from \$38.95 to \$40.45

Sharkman counts with \$1's.

5. from \$4.87 to \$19.87

6. from \$38.95 to \$53.95

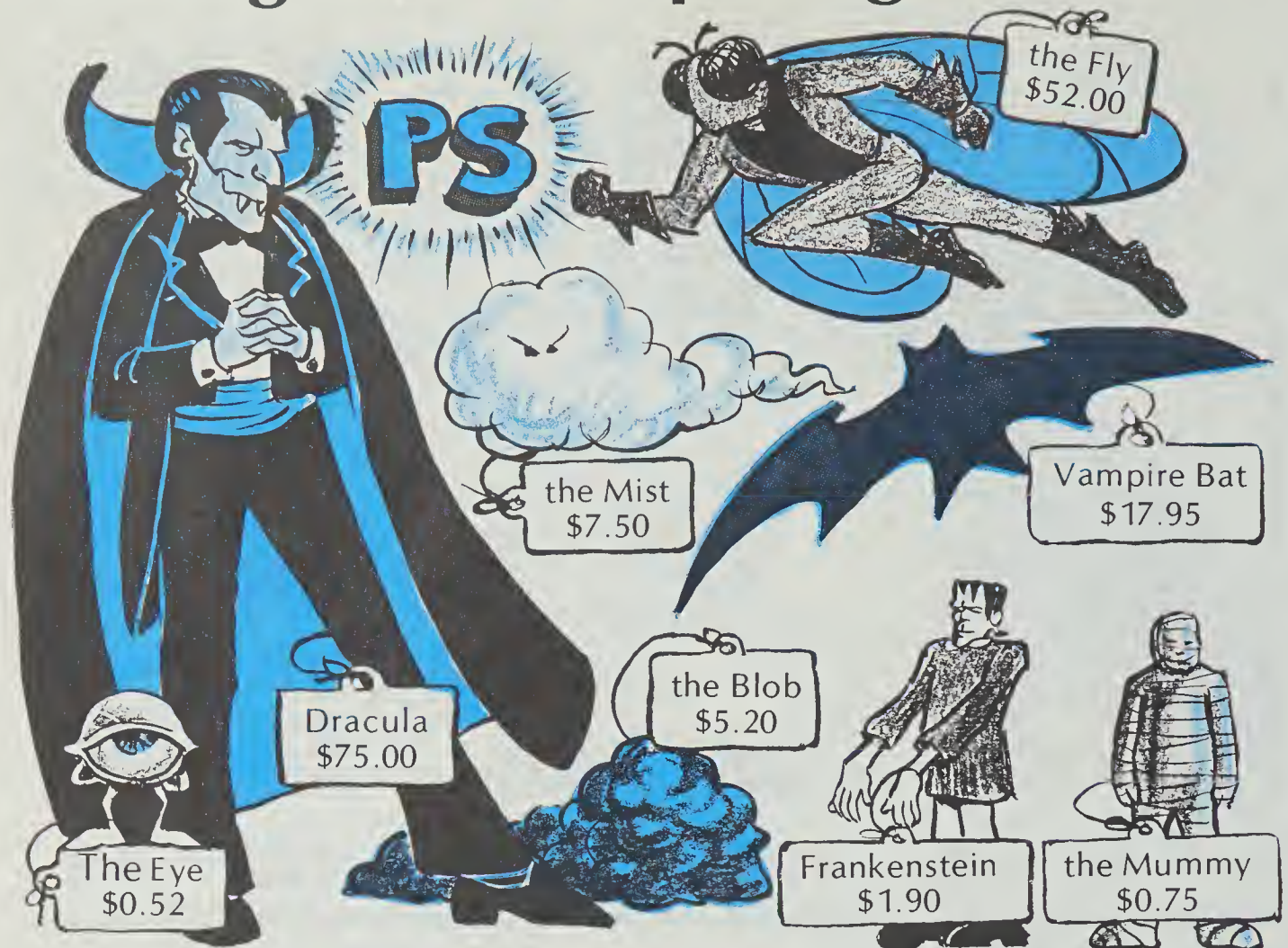
Headless Horseman counts with \$10's.

7. from \$4.87 to \$94.87

8. from \$38.95 to \$98.95



Finding and Comparing



Which costs **more**?

1. the Mummy or Dracula
2. the Fly or The Eye
3. the Blob or the Mist

Which costs **less**?

4. Frankenstein or the Blob
5. Vampire Bat or the Mist
6. the Fly or Dracula

7. Which cost **more** than \$10.00?
8. Which cost **less** than \$1.00?
9. Which cost **between** \$2.00 and \$20.00?
10. List the monsters from **least** cost to **greatest** cost.

Patterns



1 2 14

not standard form



1 3 4

standard form

See the pattern?
Why no fives?

25¢	5¢	1¢
		0
		1
		2
		3
		4
	1	0
	1	1
	1	2
	1	3
	1	4
	2	0
	2	1
	2	2
	2	3
	2	4
	3	0
	3	1
	3	2
	3	3
	3	4
Count on to		
1	1	0

INPUT: 1 2 14

OUTPUT: 134

Change each into standard form.

1. 1 7 13

2. 4 6 10

3. 5 6 26

4. 3 15 1

5. 4 10 6

6. 7 23 2

7. 0 9 13

8. 2 9 5

9. 5 9 10

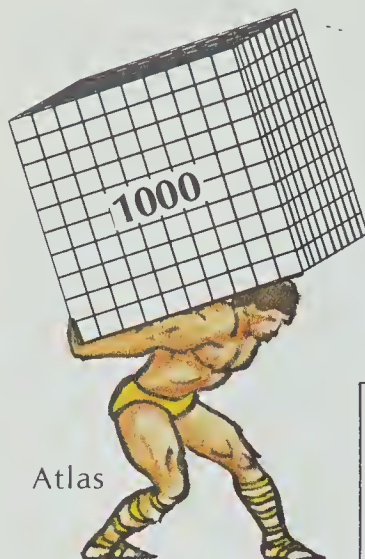
10. 1 8 24

Keep these patterns going.

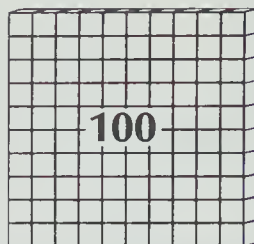
11.							?	?	?
12.							?	?	?
13.							?	?	?
14.							?	?	?
15.							?	?	?

Thousands

one thousand



one hundred



one ten



one



$1000 = 10 \text{ hundreds}$
 $100 = 10 \text{ tens}$
 $10 = 10 \text{ ones}$

Heracles



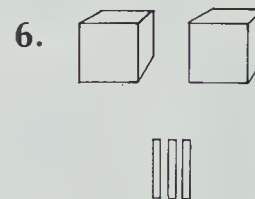
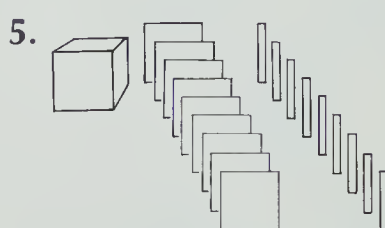
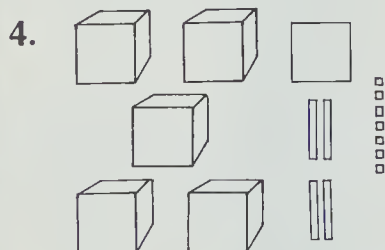
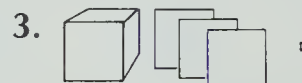
3497
 3498
 3499
 3500
 3501



two thousand one hundred twenty-two
2122

EXERCISES

Write in standard form. Then count ten more.



PRACTICE

Count ten more.

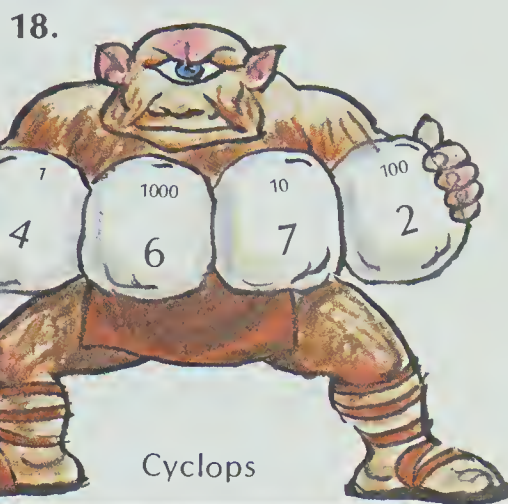
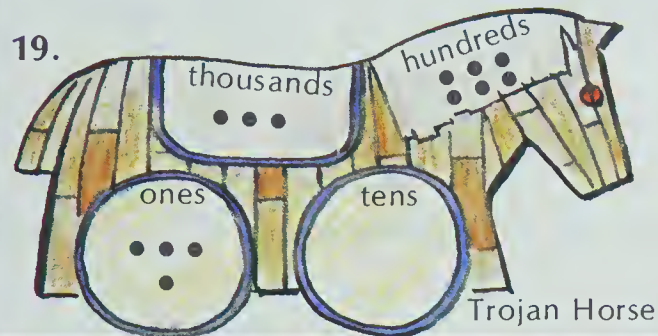
1. 1530 2. 3282 3. 7375 4. 6497 5. 3986
6. 8060 7. 6000 8. 4092 9. 2607 10. 994

Write in standard form.

11. six thousand seven hundred 12. nine thousand fifty-six
13. three thousand eleven 14. one thousand six hundred two
15. four thousand two hundred sixteen 16. two thousand forty

17.

1000	100	10	1
••	•	••	••



REVIEW

Copy and complete the equations.

M4

1. $3\text{ m} + 2\text{ dm} + 6\text{ cm} = \blacksquare\text{ cm}$
2. $7\text{ m} + 4\text{ cm} = \blacksquare\text{ cm}$

Use the dollar sign \$.

M5

- 3.
4. 125¢
- 5.

Write in standard form.

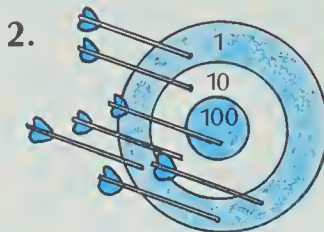
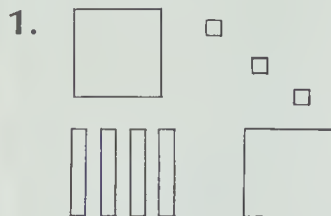
N7

- 6.
7. from 3128 to 3133
8. two thousand one

TEST

UNIT 3

Write in standard form.



3. six hundred two

4. $900 + 30 + 8$

5. $700 + 20 + 6$

6. $3 + 400 + 80$

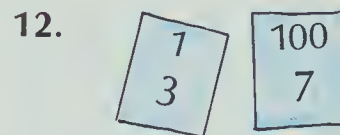
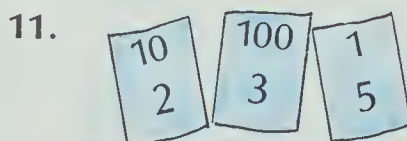
7. $70 + 6 + 300$

8. $200 + 70$

9. $500 + 6$

10.

100	10	1
7	2	4



Count.

13. from 182 to 194 14. from 590 to 602 15. from 902 to 914

16. by tens from 142 to 252 17. by hundreds from 104 to 904

Use $<$ or $>$.

18. $635 \bullet 640$ 19. $799 \bullet 804$ 20. $120 \bullet 75$ 21. $727 \bullet 721$

Copy and complete the equations.

22. $3 \text{ m} = \blacksquare \text{ cm}$

23. $4 \text{ m} + 6 \text{ dm} + 2 \text{ cm} = \blacksquare \text{ cm}$

Use the dollar sign \$.

24.

\$10	\$1	10¢	1¢
7	3	0	5



26. 235¢

Write in standard form.



28. from 1658 to 1665 29. two thousand four

SUBTRACTION

Subtract.

$$\begin{array}{r} 1. \quad 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 11 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 10 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 11 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 14 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 16 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 12 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 18 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 15 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 12 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 13 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 12 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 13 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 12 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 14 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 16 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 15 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 11 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 9 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 17 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 8 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 13 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 11 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 13 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 13 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 29 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 32 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 33. \quad 46 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 34. \quad 81 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 35. \quad 30 \\ - 10 \\ \hline \end{array}$$

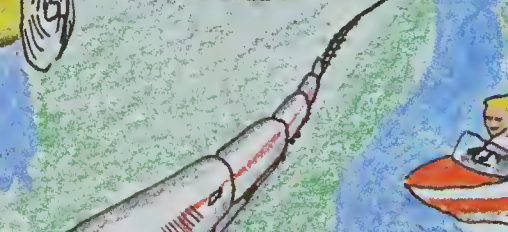
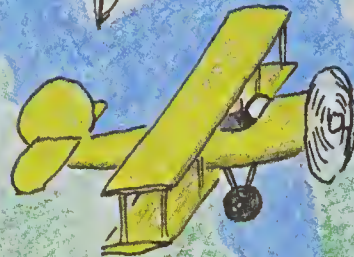
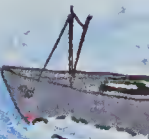
Solve.

36. 18 masks
9 spooky

How many are not spooky?

37. 16 bats
10 fly away.

How many are left?

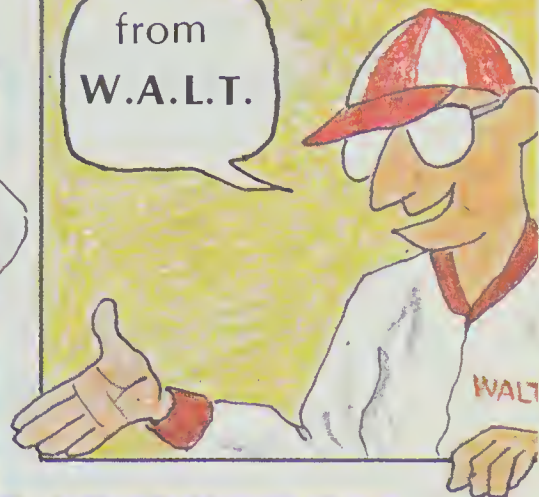


A Moving Message

2 8 5 18 16 8 9 16 17 8 7 13

5 16 8 7 4 14 3 16 5 8 5 9 3 7

from
W.A.L.T.



A. 4
 + 4
 —

B. 6
 + 6
 —

E. 9
 + 9
 —

F. 7
 + 3
 —

I. 4
 + 5
 —

C. 7
 + 4
 —

D. 4
 + 9
 —

G. 10
 + 5
 —

H. 7
 + 5
 —

J. 4
 + 2
 —

K. 5
 + 5
 —

L. 8
 + 9
 —

O. 1
 + 2
 —

P. 7
 + 7
 —

S. 1
 + 3
 —

M. 2
 + 8
 —

N. 4
 + 3
 —

Q. 6
 + 9
 —

R. 10
 + 6
 —

T. 2
 + 3
 —

U. 8
 + 7
 —

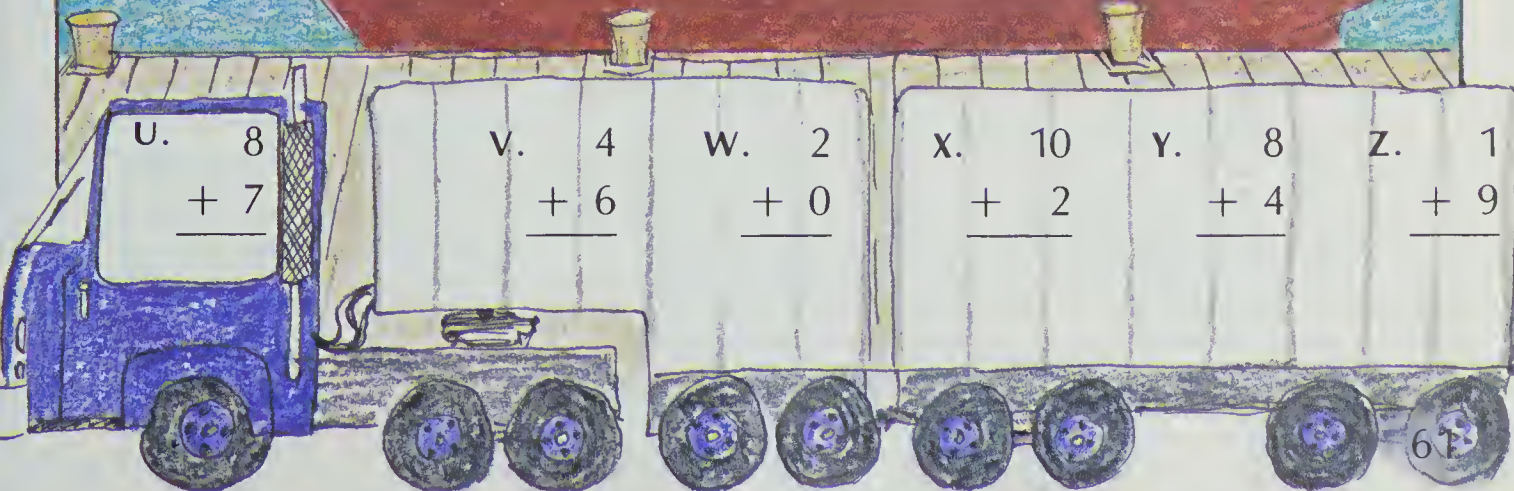
V. 4
 + 6
 —

W. 2
 + 0
 —

X. 10
 + 2
 —

Y. 8
 + 4
 —

Z. 1
 + 9
 —



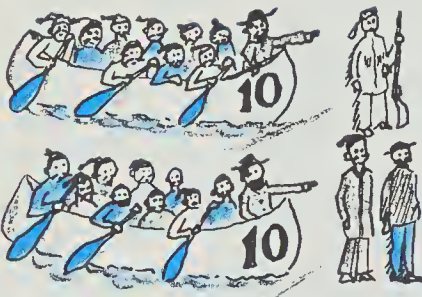
Two-Digit Addends

Add the ones.

$$\begin{array}{r} 24 \\ + 32 \\ \hline 6 \end{array}$$

Then add the tens.

$$\begin{array}{r} 24 \\ + 32 \\ \hline 56 \end{array}$$



$$\begin{array}{r} 23 \\ + 16 \\ \hline \end{array}$$

23 explorers and 16 explorers equal 39 explorers.

EXERCISES

Add.

1. $\begin{array}{r} 34 \\ + 12 \\ \hline \end{array}$

2. $\begin{array}{r} 52 \\ + 13 \\ \hline \end{array}$

3. $\begin{array}{r} 20 \\ + 32 \\ \hline \end{array}$

4. $\begin{array}{r} 36 \\ + 30 \\ \hline \end{array}$

5. $\begin{array}{r} 32 \\ + 37 \\ \hline \end{array}$

6. $\begin{array}{r} 40 \\ + 26 \\ \hline \end{array}$

7. $\begin{array}{r} 43 \\ + 16 \\ \hline \end{array}$

8. $\begin{array}{r} 40 \\ + 6 \\ \hline \end{array}$

9. $\begin{array}{r} 43 \\ + 6 \\ \hline \end{array}$

10. $\begin{array}{r} 7 \\ + 31 \\ \hline \end{array}$

11. 20 and 40

12. 70 and 11

13. 31 and 25

14. 12 and 54

15. 7 and 30

16. 23 and 4

PRACTICE

Add.

A. $\begin{array}{r} 50 \\ + 38 \\ \hline \end{array}$

B. $\begin{array}{r} 27 \\ + 12 \\ \hline \end{array}$

C. $\begin{array}{r} 24 \\ + 24 \\ \hline \end{array}$

D. $\begin{array}{r} 63 \\ + 21 \\ \hline \end{array}$

E. $\begin{array}{r} 84 \\ + 15 \\ \hline \end{array}$

F. $\begin{array}{r} 16 \\ + 73 \\ \hline \end{array}$

G. $\begin{array}{r} 70 \\ + 20 \\ \hline \end{array}$

H. $\begin{array}{r} 18 \\ + 41 \\ \hline \end{array}$

I. $\begin{array}{r} 30 \\ + 40 \\ \hline \end{array}$

J. $\begin{array}{r} 32 \\ + 42 \\ \hline \end{array}$

K. $\begin{array}{r} 50 \\ + 29 \\ \hline \end{array}$

L. $\begin{array}{r} 41 \\ + 51 \\ \hline \end{array}$

M. $\begin{array}{r} 50 \\ + 40 \\ \hline \end{array}$

N. $\begin{array}{r} 72 \\ + 22 \\ \hline \end{array}$

O. $\begin{array}{r} 23 \\ + 60 \\ \hline \end{array}$

P. $\begin{array}{r} 50 \\ + 8 \\ \hline \end{array}$

Q. $\begin{array}{r} 63 \\ + 5 \\ \hline \end{array}$

R. $\begin{array}{r} 70 \\ + 7 \\ \hline \end{array}$

S. $\begin{array}{r} 5 \\ + 52 \\ \hline \end{array}$

T. $\begin{array}{r} 9 \\ + 80 \\ \hline \end{array}$

U. 17 and 21

V. 50 and 37

W. 60 and 7

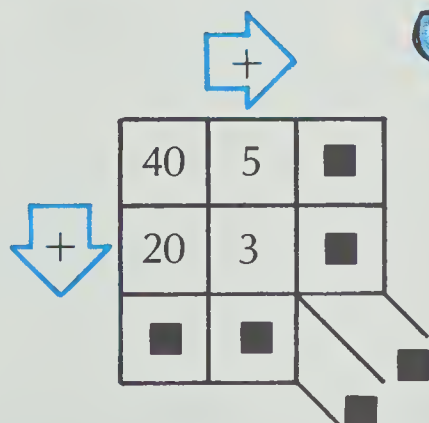
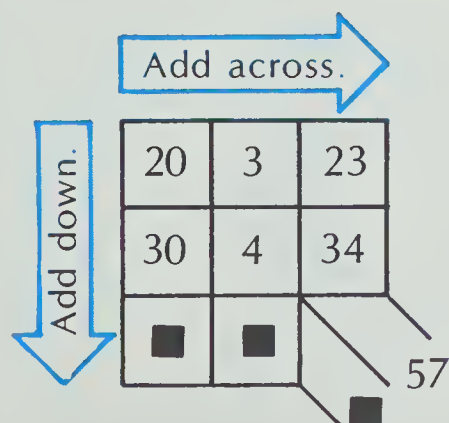
X. $43 + 46$

Y. $80 + 13$

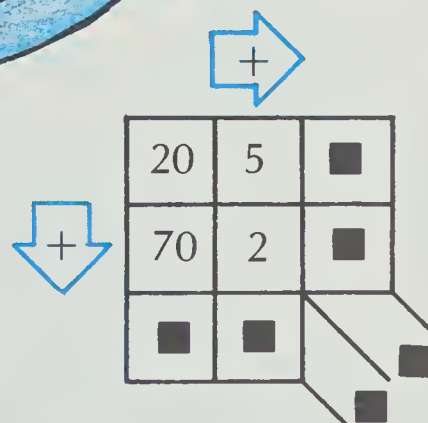
Z. $35 + 20$

48 88 94 93 83 38 58 88 84 84 92 99 ?

Can You Do These?



Yes, Canoe?



Two-Digit Addends

Add the
ones.

$$\begin{array}{r} 25 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ + 9 \\ \hline \end{array}$$

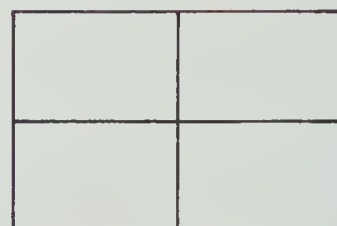
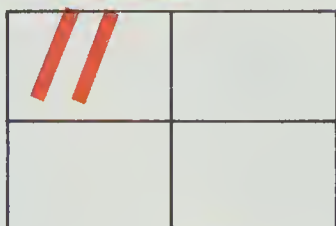
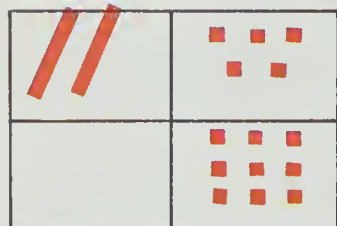


Place value
trade.

$$\begin{array}{r} 1 \\ 25 \\ + 9 \\ \hline 4 \end{array}$$

Add the
tens.

$$\begin{array}{r} 1 \\ 25 \\ + 9 \\ \hline 34 \end{array}$$



EXERCISES

Finish adding.

1.
$$\begin{array}{r} \blacksquare \\ 14 \\ + 9 \\ \hline 3 \end{array}$$

2.
$$\begin{array}{r} \blacksquare \\ 25 \\ + 6 \\ \hline 1 \end{array}$$

3.
$$\begin{array}{r} \blacksquare \\ 46 \\ + 6 \\ \hline 2 \end{array}$$

4.
$$\begin{array}{r} \blacksquare \\ 39 \\ + 2 \\ \hline 1 \end{array}$$

5.
$$\begin{array}{r} 23 \\ + 2 \\ \hline 5 \end{array}$$

6.
$$\begin{array}{r} 29 \\ + 6 \\ \hline 5 \end{array}$$

7.
$$\begin{array}{r} 32 \\ + 0 \\ \hline 2 \end{array}$$

8.
$$\begin{array}{r} 39 \\ + 3 \\ \hline 2 \end{array}$$

9.
$$\begin{array}{r} 42 \\ + 2 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 45 \\ + 9 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 21 \\ + 2 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 26 \\ + 7 \\ \hline \end{array}$$

PRACTICE

Add.

A. $\begin{array}{r} 24 \\ + 8 \\ \hline \end{array}$

B. $\begin{array}{r} 19 \\ + 5 \\ \hline \end{array}$

C. $\begin{array}{r} 36 \\ + 6 \\ \hline \end{array}$

D. $\begin{array}{r} 42 \\ + 9 \\ \hline \end{array}$

E. $\begin{array}{r} 58 \\ + 4 \\ \hline \end{array}$

F. $\begin{array}{r} 35 \\ + 9 \\ \hline \end{array}$

G. $\begin{array}{r} 27 \\ + 8 \\ \hline \end{array}$

H. $\begin{array}{r} 15 \\ + 6 \\ \hline \end{array}$

I. $\begin{array}{r} 45 \\ + 7 \\ \hline \end{array}$

J. $\begin{array}{r} 79 \\ + 4 \\ \hline \end{array}$

K. $\begin{array}{r} 38 \\ + 8 \\ \hline \end{array}$

L. $\begin{array}{r} 22 \\ + 4 \\ \hline \end{array}$

M. $\begin{array}{r} 53 \\ + 4 \\ \hline \end{array}$

N. $\begin{array}{r} 47 \\ + 7 \\ \hline \end{array}$

O. $\begin{array}{r} 59 \\ + 9 \\ \hline \end{array}$

P. $\begin{array}{r} 83 \\ + 3 \\ \hline \end{array}$

Q. $\begin{array}{r} 19 \\ + 7 \\ \hline \end{array}$

R. $\begin{array}{r} 33 \\ + 7 \\ \hline \end{array}$

S. $\begin{array}{r} 91 \\ + 4 \\ \hline \end{array}$

T. $\begin{array}{r} 45 \\ + 5 \\ \hline \end{array}$

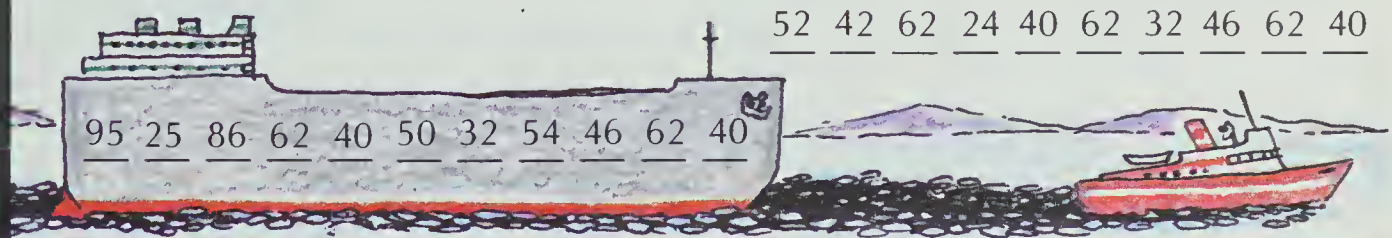
U. $19 + 6$

V. $38 + 7$

W. $76 + 6$

X. $6 + 22$

Y. $7 + 77$



What Comes Next?



Keep these patterns going.

1. \boxed{W} \square $\bigcirc W$ \square \boxed{W} \bigcirc
2. $\bigcirc W$ $\boxed{\approx}$ $\bigcirc M$ $\boxed{\approx}$ $\bigcirc W$ $\boxed{\approx}$
3. \square \bigcirc \square \bigcirc \square \bigcirc
4. \triangle \square \bigcirc \triangle \square \bigcirc

Two-Digit Addends

Add the
ones.

$$\begin{array}{r} 36 \\ + 29 \\ \hline \end{array}$$

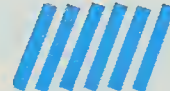
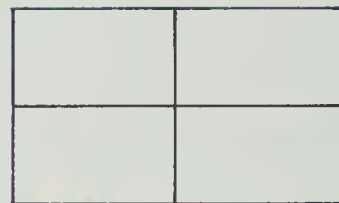
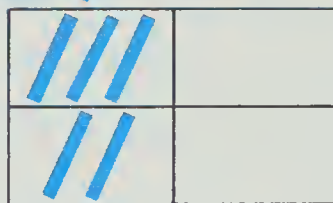
$$\begin{array}{r} 36 \\ + 29 \\ \hline \end{array}$$

Place value
trade.

$$\begin{array}{r} 1 \\ 36 \\ + 29 \\ \hline 5 \end{array}$$

Add the
tens.

$$\begin{array}{r} 1 \\ 36 \\ + 29 \\ \hline 65 \end{array}$$



EXERCISES

Finish adding.

1. $\begin{array}{r} 14 \\ + 39 \\ \hline 3 \end{array}$

2. $\begin{array}{r} 25 \\ + 16 \\ \hline 1 \end{array}$

3. $\begin{array}{r} 46 \\ + 26 \\ \hline 2 \end{array}$

4. $\begin{array}{r} 39 \\ + 22 \\ \hline 1 \end{array}$

5. $\begin{array}{r} 23 \\ + 42 \\ \hline 5 \end{array}$

6. $\begin{array}{r} 29 \\ + 46 \\ \hline 5 \end{array}$

7. $\begin{array}{r} 32 \\ + 30 \\ \hline 2 \end{array}$

8. $\begin{array}{r} 39 \\ + 33 \\ \hline 2 \end{array}$

9. $\begin{array}{r} 42 \\ + 12 \\ \hline \end{array}$

10. $\begin{array}{r} 45 \\ + 19 \\ \hline \end{array}$

11. $\begin{array}{r} 21 \\ + 42 \\ \hline \end{array}$

12. $\begin{array}{r} 26 \\ + 47 \\ \hline \end{array}$

PRACTICE

Add.

A. $\begin{array}{r} 28 \\ + 34 \\ \hline \end{array}$

B. $\begin{array}{r} 28 \\ + 19 \\ \hline \end{array}$

C. $\begin{array}{r} 39 \\ + 28 \\ \hline \end{array}$

D. $\begin{array}{r} 37 \\ + 39 \\ \hline \end{array}$

E. $\begin{array}{r} 46 \\ + 27 \\ \hline \end{array}$

F. $\begin{array}{r} 56 \\ + 36 \\ \hline \end{array}$

G. $\begin{array}{r} 25 \\ + 57 \\ \hline \end{array}$

H. $\begin{array}{r} 31 \\ + 29 \\ \hline \end{array}$

I. $\begin{array}{r} 44 \\ + 49 \\ \hline \end{array}$

J. $\begin{array}{r} 16 \\ + 18 \\ \hline \end{array}$

K. $\begin{array}{r} 32 \\ + 24 \\ \hline \end{array}$

L. $\begin{array}{r} 36 \\ + 5 \\ \hline \end{array}$

M. $\begin{array}{r} 48 \\ + 13 \\ \hline \end{array}$

N. $\begin{array}{r} 62 \\ + 5 \\ \hline \end{array}$

O. $\begin{array}{r} 78 \\ + 12 \\ \hline \end{array}$

P. $\begin{array}{r} 38 \\ + 46 \\ \hline \end{array}$

Q. $\begin{array}{r} 43 \\ + 23 \\ \hline \end{array}$

R. $\begin{array}{r} 15 \\ + 28 \\ \hline \end{array}$

S. $\begin{array}{r} 86 \\ + 5 \\ \hline \end{array}$

T. $\begin{array}{r} 46 \\ + 3 \\ \hline \end{array}$

U. $22 + 19$

V. $15 + 46$

W. $13 + 38$

X. $16 + 71$

Y. $6 + 77$

Z. $25 + 55$

$\begin{array}{r} 76 \\ 90 \\ \hline \end{array}$ $\begin{array}{r} 73 \\ 91 \\ \hline \end{array}$

$\begin{array}{r} 51 \\ 62 \\ \hline \end{array}$ $\begin{array}{r} 41 \\ 49 \\ \hline \end{array}$

$\begin{array}{r} 82 \\ 90 \\ \hline \end{array}$

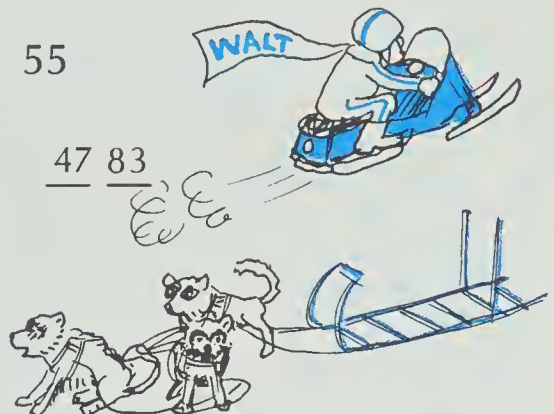
$\begin{array}{r} 47 \\ 83 \\ \hline \end{array}$

$\begin{array}{r} 76 \\ 90 \\ \hline \end{array}$ $\begin{array}{r} 82 \\ \hline \end{array}$

$\begin{array}{r} 91 \\ 41 \\ \hline \end{array}$ $\begin{array}{r} 73 \\ 76 \\ \hline \end{array}$

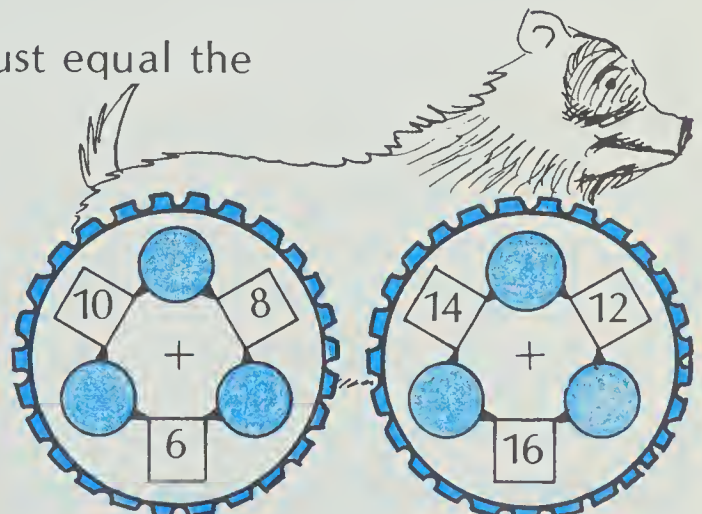
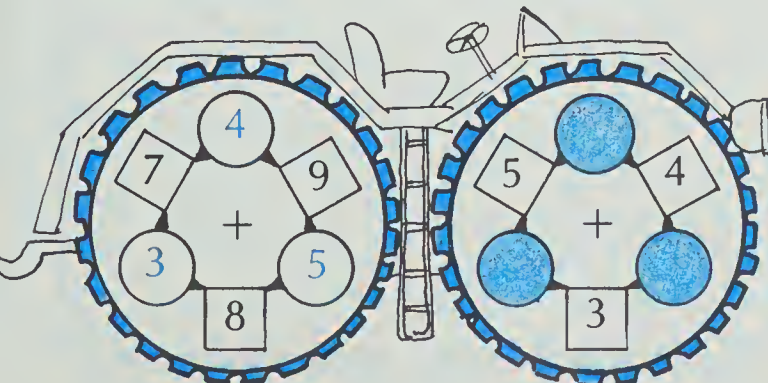
$\begin{array}{r} 90 \\ 43 \\ \hline \end{array}$

$\begin{array}{r} 91 \\ 67 \\ \hline \end{array}$ $\begin{array}{r} 90 \\ 51 \\ \hline \end{array}$ $\begin{array}{r} 61 \\ 90 \\ \hline \end{array}$ $\begin{array}{r} 47 \\ 93 \\ \hline \end{array}$ $\begin{array}{r} 41 \\ 73 \\ \hline \end{array}$



Sum—Land Rovers

The sum of two circled numbers must equal the boxed number between them.

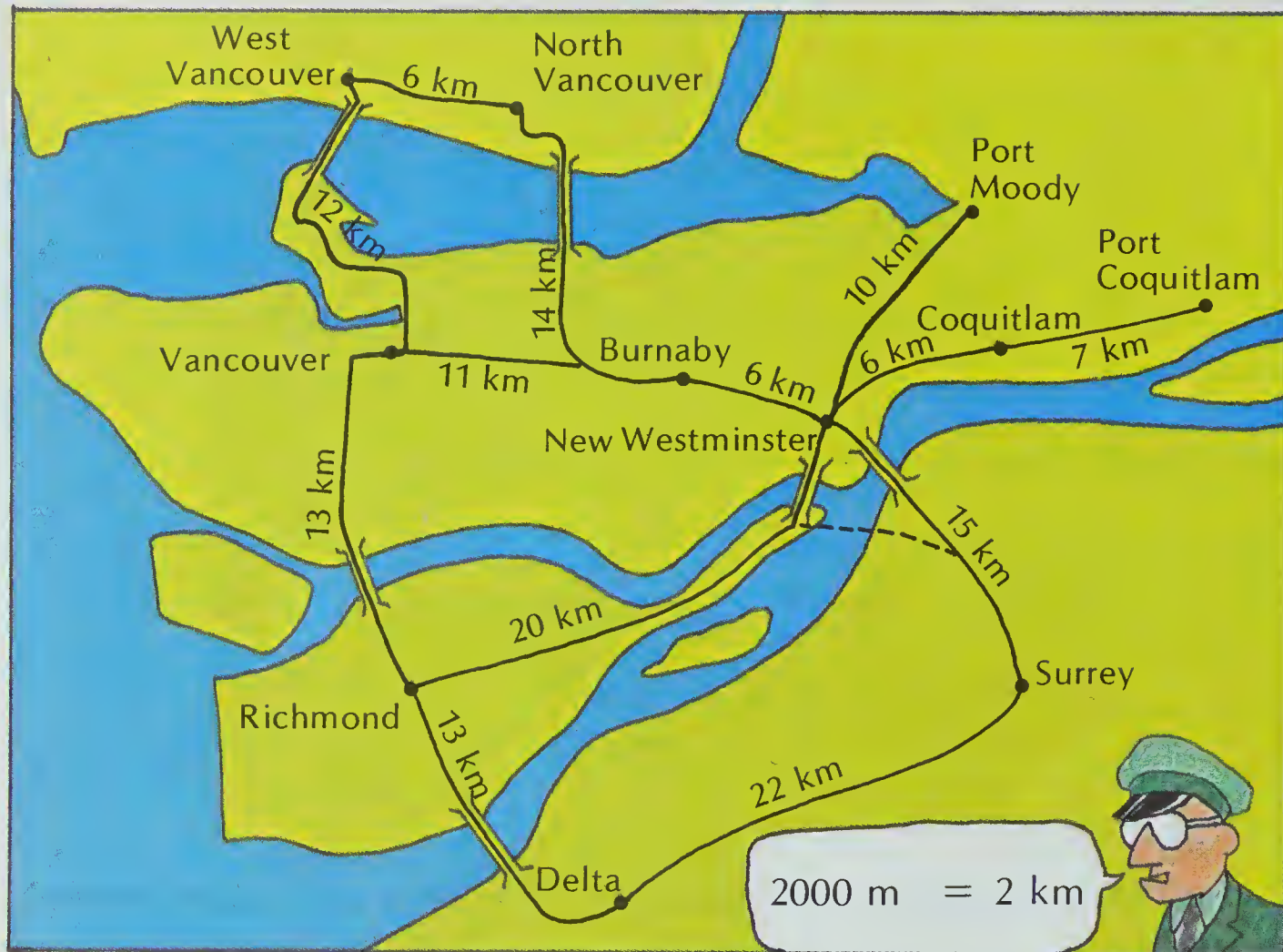


Kilometre

A **kilometre** is 1000 metres.

$$1 \text{ km} = 1000 \text{ m}$$

The distance between cities can be measured in kilometres.



EXERCISES

Complete the equations.

1. $4 \text{ km} = \blacksquare \text{ m}$
2. $9 \text{ km} = \blacksquare \text{ m}$
3. $6 \text{ km} = \blacksquare \text{ m}$
4. $\blacksquare \text{ km} = 7000 \text{ m}$
5. $\blacksquare \text{ km} = 3000 \text{ m}$
6. $\blacksquare \text{ km} = 5000 \text{ m}$
7. How many kilometres from Vancouver to Richmond?
8. How many kilometres from Burnaby to Coquitlam?

PRACTICE

Complete the equations.

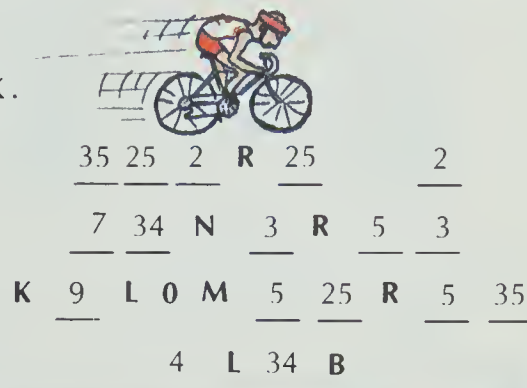
- A. $2000 \text{ m} = \blacksquare \text{ km}$ B. $8 \text{ km} = \blacksquare \text{ m}$ C. $\blacksquare \text{ km} = 4000 \text{ m}$
 D. $\blacksquare \text{ km} = 3000 \text{ m}$ E. $5000 \text{ m} = \blacksquare \text{ km}$ F. $6 \text{ km} = \blacksquare \text{ m}$
 G. $5 \text{ km} = \blacksquare \text{ m}$ H. $\blacksquare \text{ km} = 7000 \text{ m}$ I. $\blacksquare \text{ km} = 9000 \text{ m}$

Which unit would you use?

- J. length of pencil K. distance to moon L. width of camera
 M. width of room N. length of hall O. length of river
 P. height of chair Q. distance to lake R. distance to road

How many kilometres? Show your work.

- S. Surrey to Richmond
 T. Richmond to West Vancouver
 U. Delta to Burnaby
 V. Surrey to Coquitlam
 W. New Westminster to Vancouver



REVIEW

Add.

A10

1. $\begin{array}{r} 15 \\ + 24 \\ \hline \end{array}$ 2. $\begin{array}{r} 28 \\ + 60 \\ \hline \end{array}$ 3. $\begin{array}{r} 62 \\ + 7 \\ \hline \end{array}$ 4. $\begin{array}{r} 30 \\ + 50 \\ \hline \end{array}$ 5. $\begin{array}{r} 70 \\ + 9 \\ \hline \end{array}$

A11

6. $\begin{array}{r} 15 \\ + 6 \\ \hline \end{array}$ 7. $\begin{array}{r} 28 \\ + 5 \\ \hline \end{array}$ 8. $\begin{array}{r} 62 \\ + 9 \\ \hline \end{array}$ 9. $\begin{array}{r} 32 \\ + 8 \\ \hline \end{array}$ 10. $\begin{array}{r} 79 \\ + 9 \\ \hline \end{array}$

A12

11. $\begin{array}{r} 15 \\ + 39 \\ \hline \end{array}$ 12. $\begin{array}{r} 28 \\ + 26 \\ \hline \end{array}$ 13. $\begin{array}{r} 62 \\ + 24 \\ \hline \end{array}$ 14. $\begin{array}{r} 32 \\ + 49 \\ \hline \end{array}$ 15. $\begin{array}{r} 79 \\ + 17 \\ \hline \end{array}$

Three-Digit Sums

Walt's car odometer shows 53 km.

After he drives 72 km more,
what will his odometer show?

0 5 3 km

Place value trade.

Add the ones.

Add the tens.

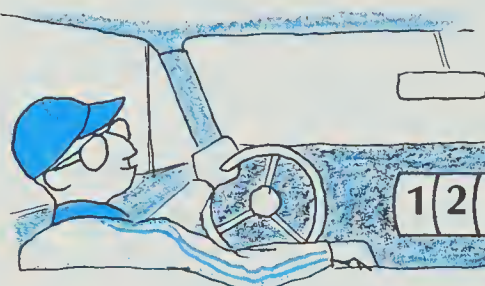
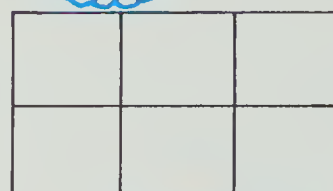
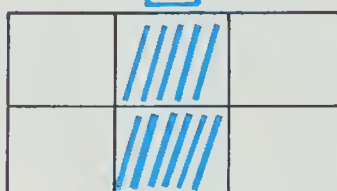
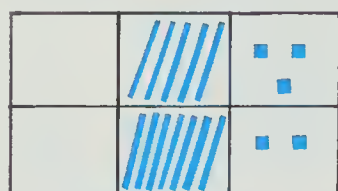
10 tens for 1 hundred.

$$\begin{array}{r} 53 \\ + 72 \\ \hline \end{array}$$

$$\begin{array}{r} 53 \\ + 72 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 53 \\ + 72 \\ \hline 125 \end{array}$$

$$\begin{array}{r} 53 \\ + 72 \\ \hline 125 \end{array}$$



1 2 5 km

shows on Walt's odometer.

EXERCISES

Add.

$$\begin{array}{r} 1. \quad 73 \\ + 72 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 93 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 44 \\ + 81 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 80 \\ + 86 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 70 \\ + 85 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 23 \\ + 42 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 95 \\ + 91 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 31 \\ + 34 \\ \hline \end{array}$$

$$9. \quad 61 \text{ and } 62$$

$$10. \quad 55 \text{ and } 61$$

$$11. \quad 35 \text{ and } 20$$

$$12. \quad 83 \text{ and } 73$$

$$13. \quad 86 \text{ and } 82$$

$$14. \quad 90 \text{ and } 16$$

$$15. \quad 38 \text{ and } 71$$

$$16. \quad 45 \text{ and } 84$$

PRACTICE

Add.

A. $\begin{array}{r} 84 \\ + 74 \\ \hline \end{array}$

B. $\begin{array}{r} 73 \\ + 53 \\ \hline \end{array}$

C. $\begin{array}{r} 67 \\ + 82 \\ \hline \end{array}$

D. $\begin{array}{r} 42 \\ + 52 \\ \hline \end{array}$

E. $\begin{array}{r} 83 \\ + 95 \\ \hline \end{array}$

F. $\begin{array}{r} 72 \\ + 72 \\ \hline \end{array}$

G. $\begin{array}{r} 62 \\ + 37 \\ \hline \end{array}$

H. $\begin{array}{r} 53 \\ + 55 \\ \hline \end{array}$

I. $\begin{array}{r} 78 \\ + 91 \\ \hline \end{array}$

J. $\begin{array}{r} 74 \\ + 35 \\ \hline \end{array}$

K. $\begin{array}{|c|c|c|} \hline 0 & 7 & 8 \\ \hline \end{array}$ km plus 90 km

L. $\begin{array}{|c|c|c|} \hline 0 & 9 & 6 \\ \hline \end{array}$ km plus 93 km

M. $\begin{array}{|c|c|c|} \hline 0 & 4 & 3 \\ \hline \end{array}$ km plus 73 km

N. $\begin{array}{|c|c|c|} \hline 0 & 6 & 8 \\ \hline \end{array}$ km plus 30 km

O. $\begin{array}{|c|c|c|} \hline 0 & 3 & 5 \\ \hline \end{array}$ km plus 84 km

P. $\begin{array}{|c|c|c|} \hline 0 & 5 & 3 \\ \hline \end{array}$ km plus 74 km

74 jeeps
63 trucks

52 ferries
94 tugboats

55 helicopters
33 jets

Q. How many in the water?

R. How many in the air?

S. How many start with j?

T. How many start with t?

Write in standard form.

U. 13 tens 6 ones

V. 26 tens 3 ones

W. 4 tens 53 ones

X. 3 tens 85 ones

Y. 6 tens 58 ones

Z. 4 tens 66 ones

Walt Hates ODD Odometers.

$\begin{array}{|c|c|c|} \hline 0 & 7 & 25 \\ \hline \end{array}$ \rightarrow $\begin{array}{|c|c|c|} \hline 0 & 9 & 5 \\ \hline \end{array}$
standard form



1. $\begin{array}{|c|c|c|} \hline 0 & 6 & 37 \\ \hline \end{array}$

2. $\begin{array}{|c|c|c|} \hline 1 & 42 & 3 \\ \hline \end{array}$

3. $\begin{array}{|c|c|c|} \hline 1 & 73 & 5 \\ \hline \end{array}$

4. $\begin{array}{|c|c|c|} \hline 1 & 7 & 15 \\ \hline \end{array}$

5. $\begin{array}{|c|c|c|} \hline 5 & 23 & 9 \\ \hline \end{array}$

6. $\begin{array}{|c|c|c|} \hline 4 & 2 & 53 \\ \hline \end{array}$

7. $\begin{array}{|c|c|c|} \hline 2 & 7 & 41 \\ \hline \end{array}$

8. $\begin{array}{|c|c|c|} \hline 4 & 3 & 53 \\ \hline \end{array}$

9. $\begin{array}{|c|c|c|} \hline 3 & 7 & 31 \\ \hline \end{array}$

Three-Digit Sums

Walt flies from Edmonton to Ponoka.
How many kilometres does he fly?

Add the ones.
Place value trade.
10 ones for 1 ten.

$$\begin{array}{r} 1 \\ 37 \text{ km} \\ + 66 \text{ km} \\ \hline 3 \end{array}$$

Add the tens.
Place value trade.
10 tens for 1 hundred.

$$\begin{array}{r} 1 \\ 37 \text{ km} \\ + 66 \text{ km} \\ \hline 103 \text{ km} \end{array}$$

Walt flies 103 km.



Edmonton airport

37 km

Leduc

66 km

Ponoka

49 km

Red Deer

57 km

Olds

76 km

Calgary airport

64 km

High River

EXERCISES

Add.

1. $\begin{array}{r} 57 \\ + 66 \\ \hline \end{array}$

2. $\begin{array}{r} 86 \\ + 67 \\ \hline \end{array}$

3. $\begin{array}{r} 72 \\ + 81 \\ \hline \end{array}$

4. $\begin{array}{r} 77 \\ + 37 \\ \hline \end{array}$

5. $\begin{array}{r} 22 \\ + 92 \\ \hline \end{array}$

6. $\begin{array}{r} 86 \\ + 96 \\ \hline \end{array}$

7. $\begin{array}{r} 81 \\ + 91 \\ \hline \end{array}$

8. $\begin{array}{r} 85 \\ + 55 \\ \hline \end{array}$

9. $\begin{array}{r} 25 \\ + 15 \\ \hline \end{array}$

10. $\begin{array}{r} 88 \\ + 88 \\ \hline \end{array}$

How far?

11. Leduc to Red Deer

13. Red Deer to Calgary

12. Ponoka to Olds

14. Olds to High River

PRACTICE

Add.

A. $\begin{array}{r} 68 \\ + 63 \\ \hline \end{array}$

B. $\begin{array}{r} 56 \\ + 74 \\ \hline \end{array}$

C. $\begin{array}{r} 38 \\ + 24 \\ \hline \end{array}$

D. $\begin{array}{r} 77 \\ + 97 \\ \hline \end{array}$

E. $\begin{array}{r} 84 \\ + 75 \\ \hline \end{array}$

F. $\begin{array}{r} 57 \\ + 42 \\ \hline \end{array}$

G. $\begin{array}{r} 59 \\ + 58 \\ \hline \end{array}$

H. $\begin{array}{r} 77 \\ + 76 \\ \hline \end{array}$

I. $\begin{array}{r} 38 \\ + 38 \\ \hline \end{array}$

J. $\begin{array}{r} 33 \\ + 67 \\ \hline \end{array}$

K. $\begin{array}{r} 82 \\ + 62 \\ \hline \end{array}$

L. $\begin{array}{r} 79 \\ + 26 \\ \hline \end{array}$

M. $\begin{array}{r} 34 \\ + 44 \\ \hline \end{array}$

N. $\begin{array}{r} 82 \\ + 89 \\ \hline \end{array}$

O. $\begin{array}{r} 97 \\ + 28 \\ \hline \end{array}$

P. $\begin{array}{r} 43 \\ + 75 \\ \hline \end{array}$

Q. $\begin{array}{r} 47 \\ + 55 \\ \hline \end{array}$

R. $\begin{array}{r} 98 \\ + 36 \\ \hline \end{array}$

S. $\begin{array}{r} 46 \\ + 67 \\ \hline \end{array}$

T. $\begin{array}{r} 95 \\ + 98 \\ \hline \end{array}$

How many kilometres in all?

U. Walk 53 km to Red Deer.
Then fly to Olds.

V. Run 68 km to High River.
Then fly to Calgary.

W. Bike 72 km to Leduc.
Then fly to Edmonton.

X. Drive 99 km to Calgary.
Then fly to Olds.

Y. Skate 24 km to Ponoka.
Then fly to Leduc.

Z. Jog 98 km to Olds.
Then fly to Red Deer.

Addition Code

Why does Walt have

12 14 23 26 14 22 20 25 19 20 30 21 16 31 ?

19 16 23 20 22 16 30 31 26 30 16 16 31 20 24 16 17 23 36.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115

Hint! Add 78
and look below.

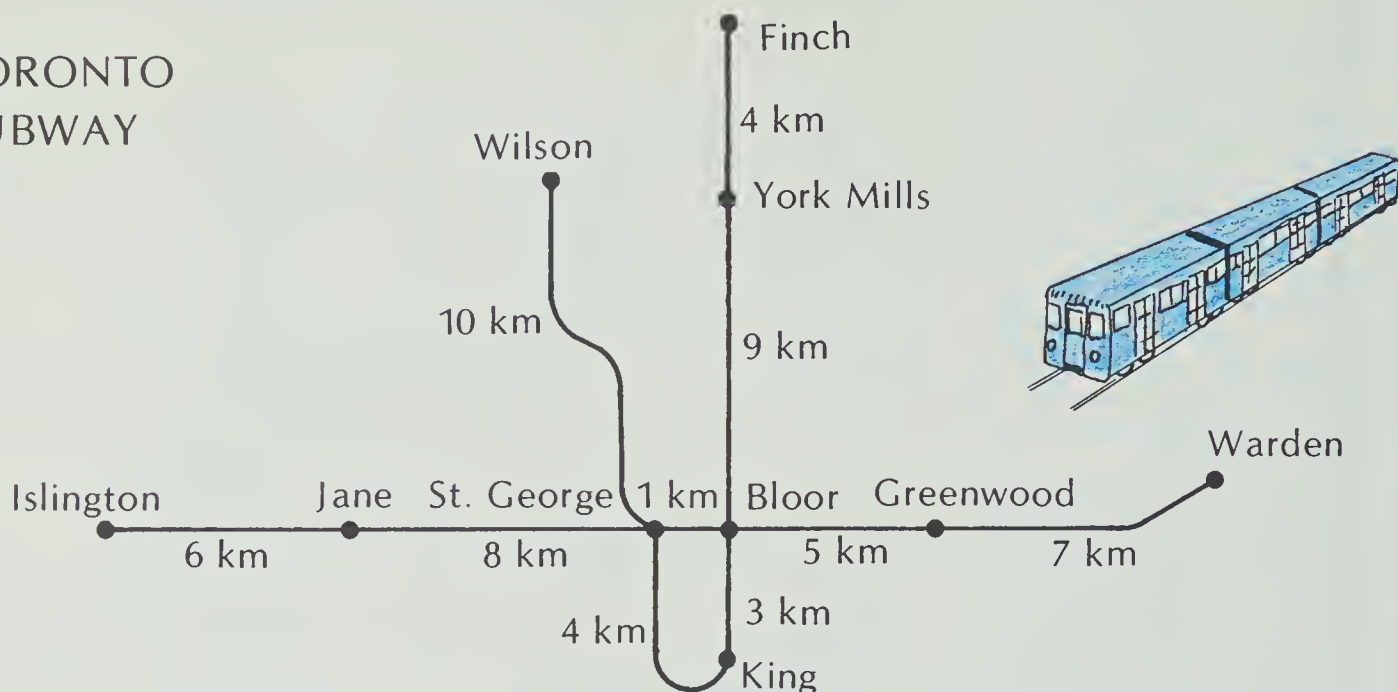


Four Addends

Walt takes this subway path. How many kilometres does he go?

Finch → York Mills → Bloor → King → St. George

TORONTO
SUBWAY



$$\begin{array}{r} 4 \\ 9 \\ 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ 9 \\ 3 \\ + 4 \\ \hline \end{array}$$

13

$$\begin{array}{r} 4 \\ 9 \\ 3 \\ + 4 \\ \hline \end{array}$$

16

$$\begin{array}{r} 4 \\ 9 \\ 3 \\ + 4 \\ \hline 20 \end{array}$$

Walt goes
20 km
on this trip.

EXERCISES

Add.

1.	6	16	2.	6	16	3.	7	17	4.	9	19
	+ 2	+ 2		+ 6	+ 6		+ 3	+ 3		+ 2	+ 2
	<u> </u>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	<u> </u>

5.	4	6.	4	7.	4	8.	4
	3		9		9		9
	9		3		4		6
	+ 2		+ 6		+ 3		+ 8
	<u> </u>		<u> </u>		<u> </u>		<u> </u>

PRACTICE

Add.

A.	3	B.	7	C.	8	D.	7	E.	6
	3		7		8		7		3
	6		3		6		7		9
	<u>+ 8</u>		<u>+ 9</u>		<u>+ 5</u>		<u>+ 7</u>		<u>+ 1</u>

F.	6	G.	3	H.	5	I.	9	J.	3
	6		2		5		9		9
	5		3		5		1		9
	<u>+ 6</u>		<u>+ 4</u>		<u>+ 6</u>		<u>+ 9</u>		<u>+ 7</u>

K.	70	L.	30	M.	80	N.	50	O.	90
	30		80		40		30		90
	40		70		30		60		60
	<u>+ 60</u>		<u>+ 30</u>		<u>+ 90</u>		<u>+ 80</u>		<u>+ 30</u>

How many kilometres in all?

P. 3 km, 6 km, 1 km, 2 km

Q. 9 km, 4 km, 7 km, 9 km

R. 7 km, 4 km, 8 km, 5 km

S. 5 km, 7 km, 5 km, 4 km

T. Warden → Greenwood → Bloor → York Mills → Finch

U. King → Bloor → St. George → Jane → Islington

Subway Sequences

Keep the patterns going. For top speed use an alphabet.



Perimeter of a Rectangle

A rectangle
has 4 sides.

The opposite sides
have equal length.

A square
is a kind of
rectangle.

All four sides
have equal length.

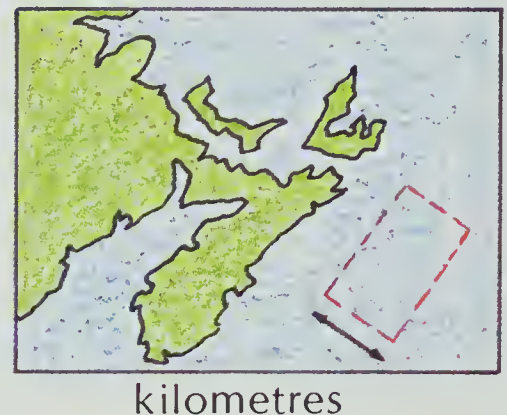
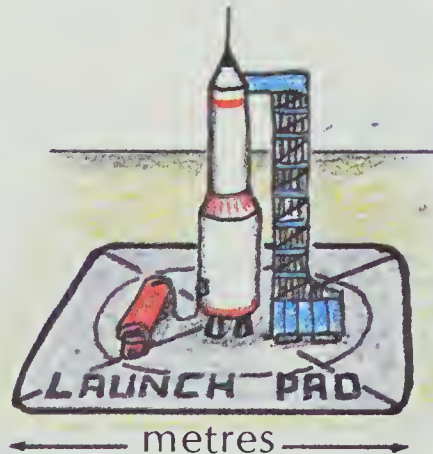
We find the perimeter of a rectangle by adding 4 lengths.



$$\begin{array}{r} 3 \text{ cm} \\ 3 \text{ cm} \\ 4 \text{ cm} \\ + 4 \text{ cm} \\ \hline 14 \text{ cm} \end{array}$$

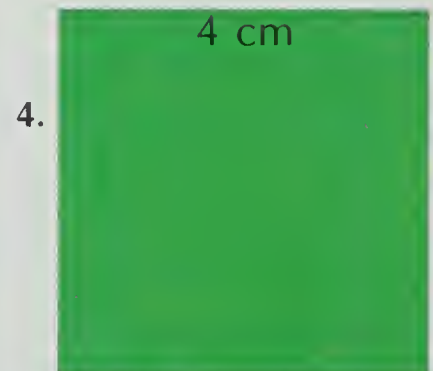
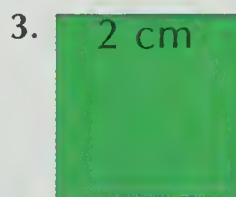
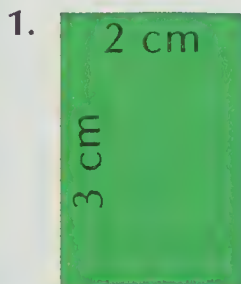


$$\begin{array}{r} 3 \text{ cm} \\ 3 \text{ cm} \\ 3 \text{ cm} \\ + 3 \text{ cm} \\ \hline 12 \text{ cm} \end{array}$$



EXERCISES

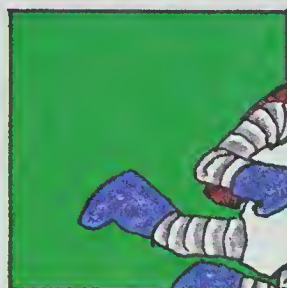
Find the perimeter.



PRACTICE

Find the perimeter.

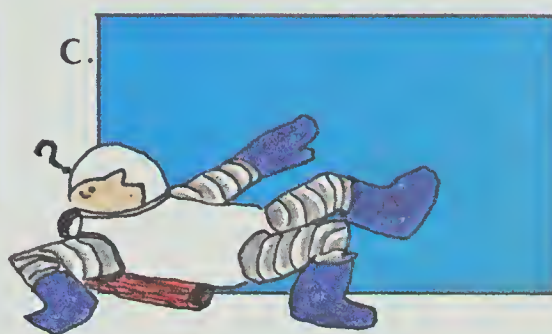
A.



B.



C.



D. Square: 5 km wide

E. Rectangle: 5 m wide, 3 m long

F. Square: 6 m wide

G. Rectangle: 6 km wide, 5 km long

H. Square: 70 cm wide

I. Rectangle: 90 m wide, 30 m long

Kilometres, metres, or centimetres for the perimeter?

J. a desk

K. the classroom

L. a large lake

M. the school

N. a window

O. drawing paper

P. the gym floor

Q. a city

R. a chalk eraser

REVIEW

Add.

A13

$$\begin{array}{r} 1. \quad 76 \\ + 80 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 45 \\ + 83 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 52 \\ + 77 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 16 \\ + 90 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 85 \\ + 93 \\ \hline \end{array}$$

A14

$$\begin{array}{r} 6. \quad 76 \\ + 45 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 45 \\ + 95 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 52 \\ + 89 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 16 \\ + 88 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 75 \\ + 57 \\ \hline \end{array}$$

A15

$$\begin{array}{r} 11. \quad 3 \\ \quad 6 \\ \quad 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 7 \\ \quad 6 \\ \quad 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 9 \\ \quad 5 \\ \quad 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 30 \\ \quad 90 \\ \quad 60 \\ + 50 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 60 \\ \quad 30 \\ \quad 70 \\ + 70 \\ \hline \end{array}$$

TEST

UNIT 4

Add.

$$\begin{array}{r} 1. \quad 14 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 29 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 78 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 57 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 38 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 34 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 19 \\ + 78 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 43 \\ + 44 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 35 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \\ + 48 \\ \hline \end{array}$$

Copy and complete.

11. 5 km = ■ m

12. ■ km = 6000 m

13. 2 km = ■ km

Add.

$$\begin{array}{r} 14. \quad 62 \\ + 64 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 80 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 84 \\ + 84 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 52 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 98 \\ + 19 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 58 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 94 \\ + 57 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 99 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 25 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 32 \\ + 88 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 5 \\ 6 \\ 3 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 6 \\ 6 \\ 6 \\ + 6 \\ \hline \end{array}$$

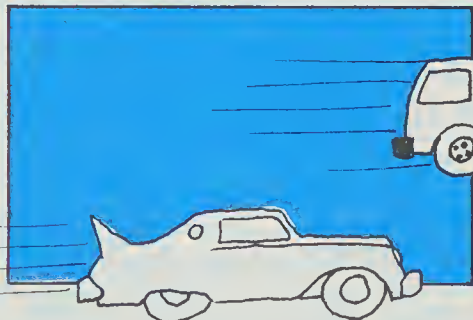
$$\begin{array}{r} 26. \quad 9 \\ 6 \\ 5 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 10 \\ 30 \\ 20 \\ + 80 \\ \hline \end{array}$$

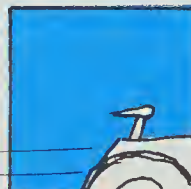
$$\begin{array}{r} 28. \quad 90 \\ 80 \\ 10 \\ + 90 \\ \hline \end{array}$$

Measure and add to find each perimeter.

29.



30.



31.



NUMERALS TO 9999

Show the numerals in standard form.

1.



2.



3.



4. from 83 to 95

5. from 491 to 503

6. from 804 to 816

7. $300 + 20 + 4$

8. $600 + 10 + 9$

9. $2 + 300 + 50$

10. $80 + 3 + 200$

11. $700 + 20$

12. $600 + 5$

13. Count from 432 to 542 by tens.

14. Count from 93 to 993 by hundreds.

Copy and complete the equations.

15. $2 \text{ dm} = \blacksquare \text{ cm}$

16. $2 \text{ dm} + 3 \text{ cm} = \blacksquare \text{ cm}$

17. $\blacksquare \text{ dm} + \blacksquare \text{ cm} = 32 \text{ cm}$

18. $3 \text{ m} = \blacksquare \text{ cm}$

19. $4 \text{ m} + 6 \text{ dm} + 2 \text{ cm} = \blacksquare \text{ cm}$

20. $6 \text{ m} + 8 \text{ dm} = \blacksquare \text{ cm}$

Use $<$ or $>$.

21. $45 \bullet 98$

22. $432 \bullet 450$

23. $747 \bullet 699$

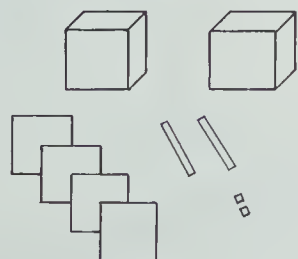
24. $934 \bullet 932$

25. $256 \bullet 329$

26. $245 \bullet 98$

Show the numerals in standard form.

27.



28. three thousand six hundred two

29. one thousand seventy-six

30. from 2678 to 2695

31. from 3490 to 3510

UNIT 5

SUBTRACTION I



A Subtraction Course



Try to get to the bottom quickly without falling.



$$\begin{array}{r} 1. \quad 2 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 5 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 10 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 8 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 12 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 18 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 15 \\ - 5 \\ \hline \end{array}$$



$$\begin{array}{r} 11. \quad 12 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 15 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 12 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 14 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 11 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 13 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 16 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 14 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 17 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 15 \\ - 8 \\ \hline \end{array}$$



$$\begin{array}{r} 21. \quad 13 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 13 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 13 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 14 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 11 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 13 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 17 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad 13 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 12 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 15 \\ - 7 \\ \hline \end{array}$$



Subtracting Tens

If you know how to subtract ones,
then you can also subtract tens.

$$7 - 2 = 5$$

$$7 \text{ ones} - 2 \text{ ones} = 5 \text{ ones}$$

$$70 - 20 = 50$$

$$7 \text{ tens} - 2 \text{ tens} = 5 \text{ tens}$$

Horizontal subtraction can be
changed into vertical subtraction.

$73 - 21$	73
becomes	$\begin{array}{r} 73 \\ - 21 \\ \hline \end{array}$

First
subtract
the ones

$$\begin{array}{r} 73 \\ - 21 \\ \hline 2 \end{array}$$

Then
subtract
the tens.

$$\begin{array}{r} 73 \\ - 21 \\ \hline 52 \end{array}$$

EXERCISES

Change to vertical form. Then subtract.

- | | | | |
|--------------|---------------|---------------|--------------|
| 1. $30 - 10$ | 2. $50 - 20$ | 3. $90 - 30$ | 4. $73 - 52$ |
| 5. $73 - 41$ | 6. $73 - 32$ | 7. $86 - 34$ | 8. $86 - 23$ |
| 9. $86 - 51$ | 10. $98 - 52$ | 11. $98 - 36$ | 12. $98 - 3$ |

PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 82 \\ - 61 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 75 \\ - 25 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 74 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 67 \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 69 \\ - 63 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 99 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 89 \\ - 20 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 97 \\ - 73 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 86 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 25 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 45 \\ - 30 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 28 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 78 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 56 \\ - 50 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 63 \\ - 22 \\ \hline \end{array}$$

Solve by subtracting.

16. 83 snowflakes. 53 melt away. How many do not?

17. 73 windows. 32 snow-covered. How many are not?

18. 35 icicles. 5 break off. How many are left?

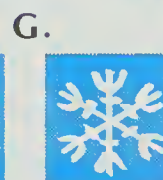
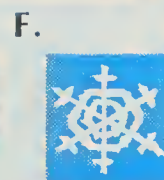
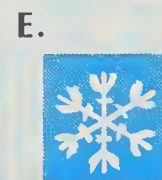
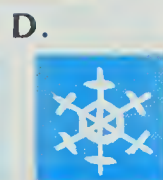
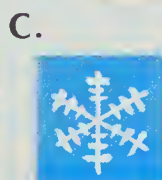
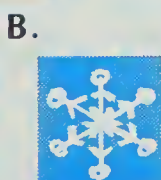
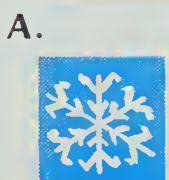
19. 3 tens less than 9 tens

20. 16 fewer than 79

Answers	Page 81	1	9	4	5	6	6	4	9
8	10	9	6	2	7	8	4	8	10
7	10	7	5	9	7	6	9	8	7

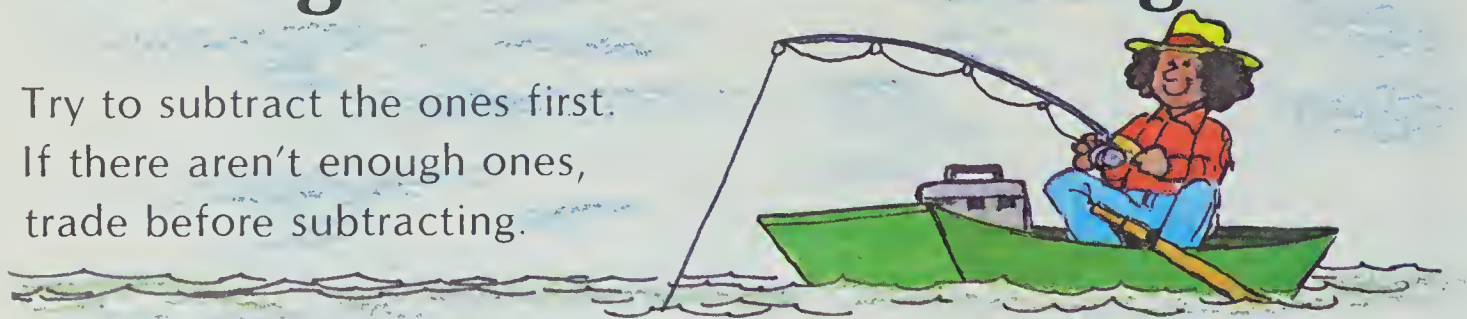
Similar Snowflakes

Match each large snowflake with a smaller *look-alike*.



Trading Before Subtracting

Try to subtract the ones first.
If there aren't enough ones,
trade before subtracting.



Not enough ones. Place value trade. Subtract the ones.
1 ten = 10 ones. Write the tens.

$$\begin{array}{r} 42 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 312 \\ 42 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 312 \\ 42 \\ - 8 \\ \hline 34 \end{array}$$

EXERCISES

Show the trade.

1. $\begin{array}{r} \blacksquare \blacksquare \\ 52 \\ \hline \end{array}$

2. $\begin{array}{r} \blacksquare \blacksquare \\ 72 \\ \hline \end{array}$

3. $\begin{array}{r} \blacksquare \blacksquare \\ 38 \\ \hline \end{array}$

4. $\begin{array}{r} \blacksquare \blacksquare \\ 21 \\ \hline \end{array}$

5. $\begin{array}{r} \blacksquare \blacksquare \\ 97 \\ \hline \end{array}$

6. $\begin{array}{r} \blacksquare \blacksquare \\ 73 \\ \hline \end{array}$

7. $\begin{array}{r} \blacksquare \blacksquare \\ 40 \\ \hline \end{array}$

8. $\begin{array}{r} \blacksquare \blacksquare \\ 67 \\ \hline \end{array}$

9. $\begin{array}{r} \blacksquare \blacksquare \\ 12 \\ \hline \end{array}$

10. $\begin{array}{r} \blacksquare \blacksquare \\ 70 \\ \hline \end{array}$

Finish subtracting.

11.
$$\begin{array}{r} 413 \\ 53 \\ - 9 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 216 \\ 36 \\ - 8 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 312 \\ 42 \\ - 4 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 810 \\ 90 \\ - 6 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 715 \\ 85 \\ - 7 \\ \hline \end{array}$$

PRACTICE

Trade if needed. Then subtract.

$$\begin{array}{r} 1. \quad 52 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 72 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 21 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 35 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 73 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 64 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 38 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 40 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 94 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 55 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 68 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 73 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 29 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 65 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 70 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 68 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 90 \\ - 1 \\ \hline \end{array}$$

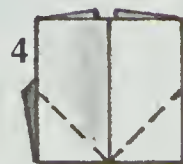
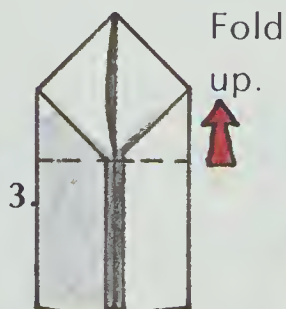
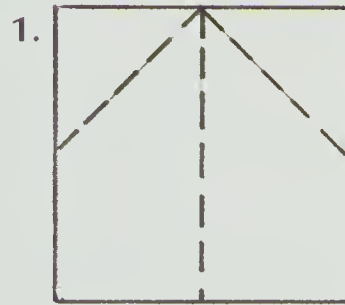
$$\begin{array}{r} 18. \quad 12 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 97 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 41 \\ - 8 \\ \hline \end{array}$$

ORIGAMI FISH

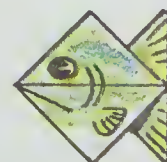
Start with a **square** piece of paper.
Fold on the dotted lines.



Fold and push the triangles between the front and back.



7. Decorate as a fish.



Two-Place Subtraction

Compare the ones first.
Don't trade unless you have to.

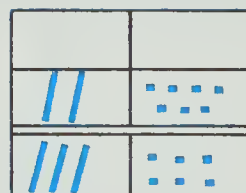
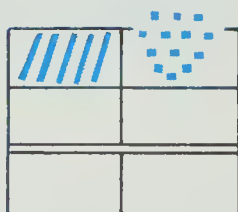


Not enough ones. Place value trade. Subtract the ones.
1 ten = 10 ones. Subtract the tens.

$$\begin{array}{r} 63 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 513 \\ \cancel{6} \cancel{3} \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 513 \\ \cancel{6} \cancel{3} \\ - 27 \\ \hline 36 \end{array}$$



EXERCISES

Write **trade** or **no trade**.

$$\begin{array}{r} 1. \quad 53 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 57 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 68 \\ - 35 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 65 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 55 \\ - 35 \\ \hline \end{array}$$

Practise trading.

$$6. \quad \cancel{3} \cancel{5}$$

$$7. \quad 27$$

$$8. \quad 63$$

$$9. \quad 42$$

$$10. \quad 55$$

$$11. \quad 78$$

$$12. \quad 31$$

$$13. \quad 50$$

$$14. \quad 83$$

$$15. \quad 90$$

PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 52 \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 72 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 21 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 35 \\ - 12 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 73 \\ - 56 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 64 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 38 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 40 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 94 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 55 \\ - 20 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 68 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 73 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 29 \\ - 22 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 65 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 70 \\ - 56 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 65 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 53 \\ - 28 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 29 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 54 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 28 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 56 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 99 \\ - 56 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 27 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 85 \\ - 67 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 40 \\ - 11 \\ \hline \end{array}$$

Change to vertical form. Then subtract.

$$26. \quad 68 - 24$$

$$27. \quad 90 - 61$$

$$28. \quad 32 - 16$$

$$29. \quad 97 - 79$$

$$30. \quad 41 - 28$$

$$31. \quad 87 - 27$$

$$32. \quad 60 - 12$$

$$33. \quad 86 - 59$$

$$34. \quad 61 - 17$$

Can you do these?

Subtract across

Subtract down.

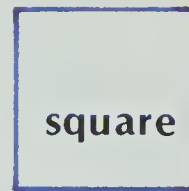
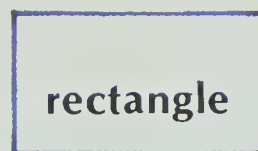
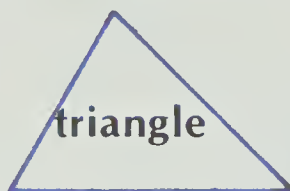
34	18	■
21	9	■
■	■	■

82	28	■
37	18	■
■	■	■

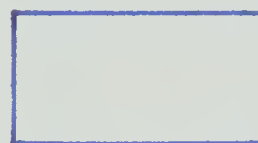
90	65	■
54	29	■
■	■	■

Plane Figures

Each of these figures has an inside.

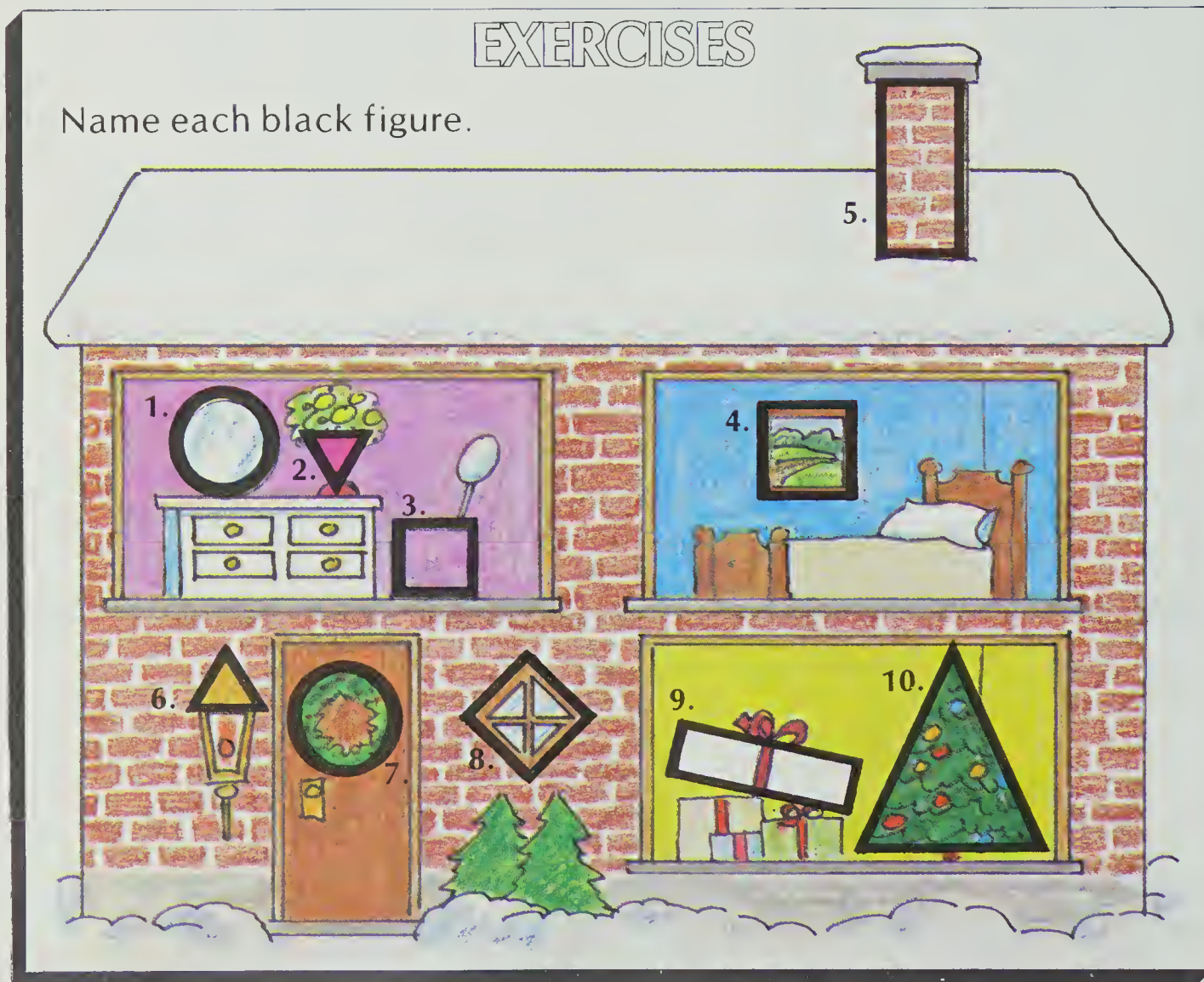


None of these figures has an inside.



EXERCISES

Name each black figure.



PRACTICE

Choose the letters.

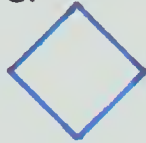
A.



B.



C.



D.



E.



1. Which have an inside?
2. Which have curved sides?
3. Which have straight sides?
4. Which have corners?
5. Which have L-corners?

Which figure is a:

6. triangle?
7. square?
8. circle?
9. rectangle?

10. Copy and complete the chart.

	Circle	Triangle	Square	Rectangle
Number of corners				
Number of sides				

REVIEW

Subtract.

A16

$$\begin{array}{r} 1. \quad 36 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 59 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 84 \\ - 14 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 93 \\ - 91 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 75 \\ - 20 \\ \hline \end{array}$$

A17

$$\begin{array}{r} 6. \quad 33 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 53 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 64 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 91 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 70 \\ - 5 \\ \hline \end{array}$$

A18

$$\begin{array}{r} 11. \quad 76 \\ - 18 \\ \hline \end{array}$$

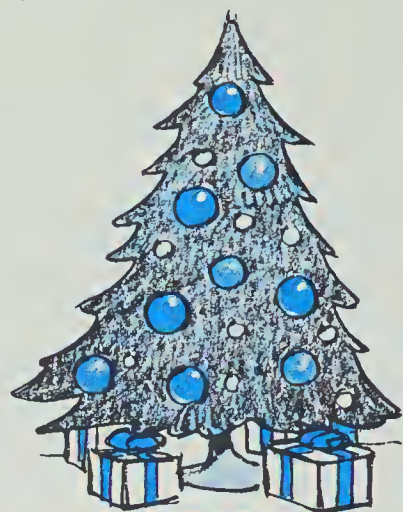
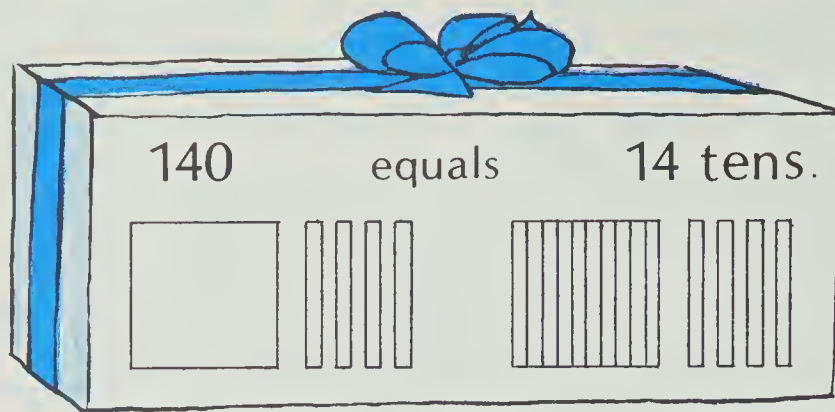
$$\begin{array}{r} 12. \quad 31 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 90 \\ - 32 \\ \hline \end{array}$$

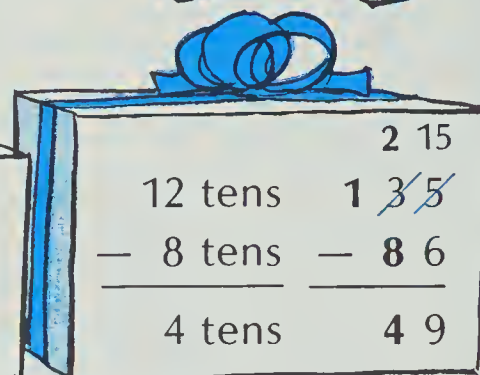
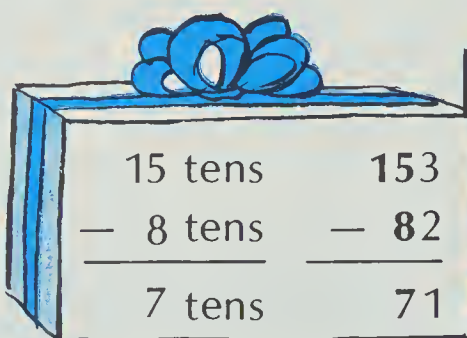
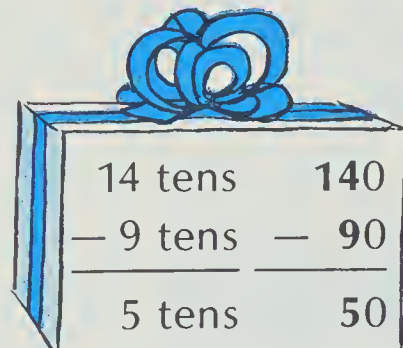
$$\begin{array}{r} 14. \quad 84 \\ - 65 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 43 \\ - 19 \\ \hline \end{array}$$

More about Subtracting Tens...



Study each subtraction present carefully.



EXERCISES

Finish each problem.

$$\begin{array}{r} 1. \quad 12 \text{ tens} \quad 120 \\ - 3 \text{ tens} \quad - 30 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 120 \\ - 60 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 140 \\ - 70 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 130 \\ - 80 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 11 \text{ tens} \quad 116 \\ - 8 \text{ tens} \quad - 84 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 135 \\ - 92 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 157 \\ - 91 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 144 \\ - 60 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 13 \text{ tens} \quad 132 \\ - 4 \text{ tens} \quad - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 151 \\ - 76 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 178 \\ - 89 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 163 \\ - 65 \\ \hline \end{array}$$

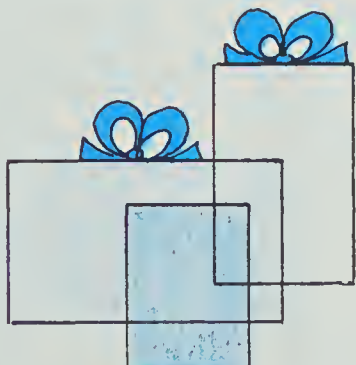
PRACTICE

Subtract.

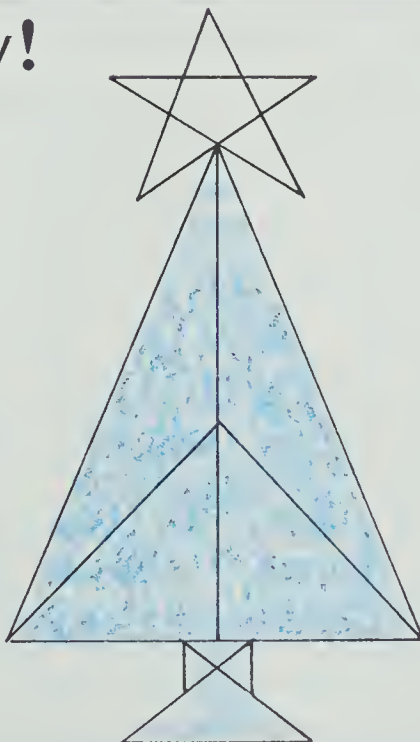
- | | | | | |
|--|--|--|--|--|
| 1. $\begin{array}{r} 150 \\ - 90 \\ \hline \end{array}$ | 2. $\begin{array}{r} 163 \\ - 82 \\ \hline \end{array}$ | 3. $\begin{array}{r} 125 \\ - 33 \\ \hline \end{array}$ | 4. $\begin{array}{r} 136 \\ - 99 \\ \hline \end{array}$ | 5. $\begin{array}{r} 146 \\ - 76 \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 124 \\ - 60 \\ \hline \end{array}$ | 7. $\begin{array}{r} 142 \\ - 88 \\ \hline \end{array}$ | 8. $\begin{array}{r} 131 \\ - 75 \\ \hline \end{array}$ | 9. $\begin{array}{r} 140 \\ - 58 \\ \hline \end{array}$ | 10. $\begin{array}{r} 161 \\ - 79 \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 151 \\ - 83 \\ \hline \end{array}$ | 12. $\begin{array}{r} 113 \\ - 38 \\ \hline \end{array}$ | 13. $\begin{array}{r} 120 \\ - 76 \\ \hline \end{array}$ | 14. $\begin{array}{r} 155 \\ - 87 \\ \hline \end{array}$ | 15. $\begin{array}{r} 127 \\ - 56 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 149 \\ - 64 \\ \hline \end{array}$ | 17. $\begin{array}{r} 142 \\ - 67 \\ \hline \end{array}$ | 18. $\begin{array}{r} 115 \\ - 22 \\ \hline \end{array}$ | 19. $\begin{array}{r} 117 \\ - 88 \\ \hline \end{array}$ | 20. $\begin{array}{r} 140 \\ - 75 \\ \hline \end{array}$ |
| 21. $\begin{array}{r} 183 \\ - 93 \\ \hline \end{array}$ | 22. $\begin{array}{r} 138 \\ - 57 \\ \hline \end{array}$ | 23. $\begin{array}{r} 124 \\ - 83 \\ \hline \end{array}$ | 24. $\begin{array}{r} 132 \\ - 36 \\ \hline \end{array}$ | 25. $\begin{array}{r} 196 \\ - 98 \\ \hline \end{array}$ |

Take a Holiday!

1. Count the rectangles below.



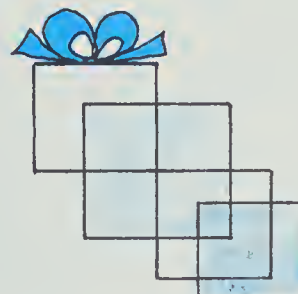
3. Count the triangles in the star.



I may need two vacations!



2. Count the squares below.

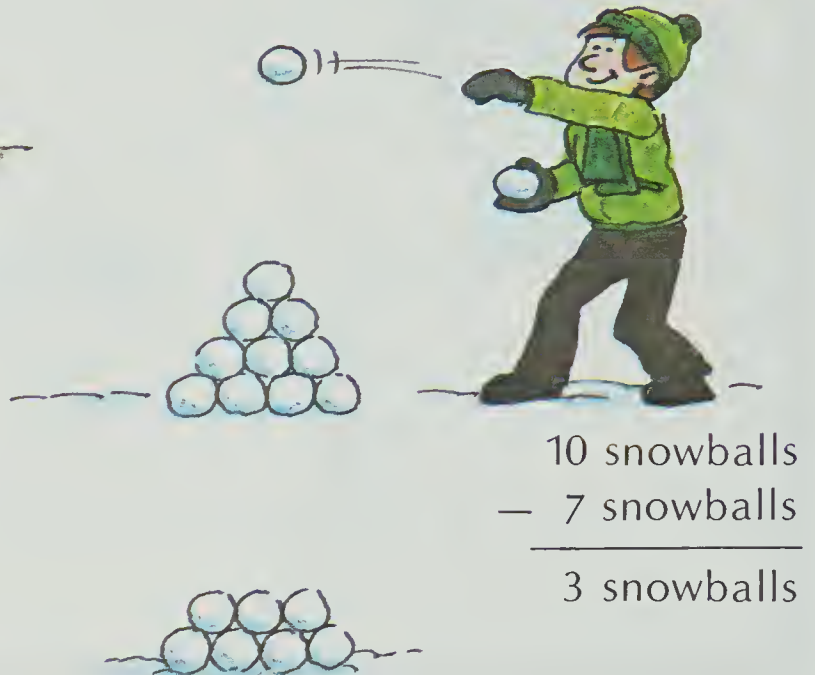
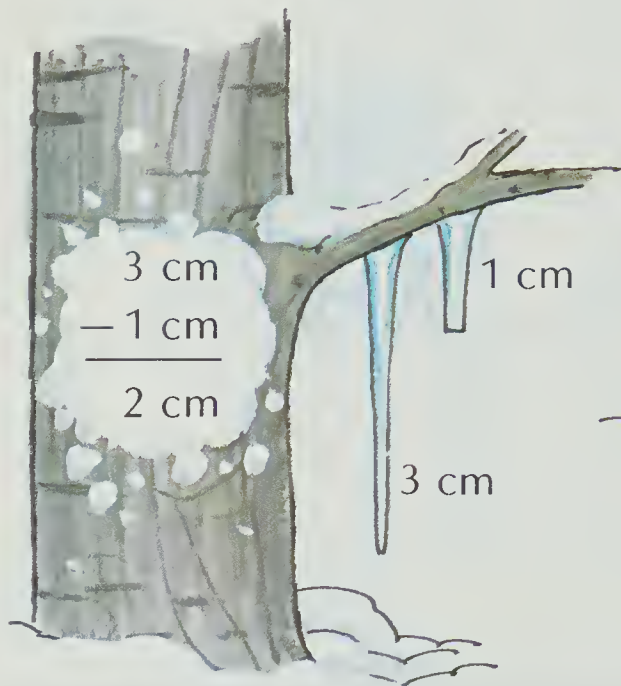
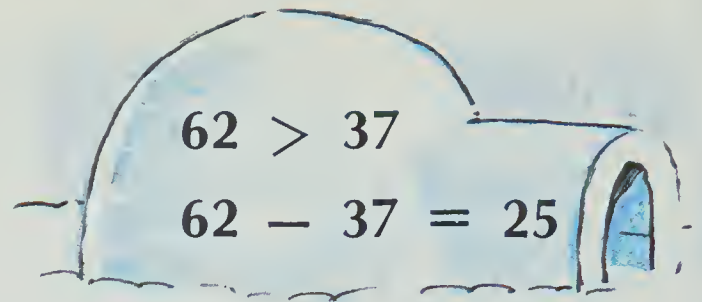


4. Count the triangles in the tree.

Differences

Compare two numbers.

Subtracting the smaller number gives the **difference**.



greater number — lesser number = difference

EXERCISES

Which is greater?

1. 26 or 37 2. 42 or 29 3. 181 or 90 4. 76 or 154

What is the difference between each pair?

5. 37 and 26 6. 29 and 42 7. 90 and 181 8. 76 and 154

Copy and complete.

9. $\begin{array}{r} 106 \\ - 83 \\ \hline \end{array}$

10. $\begin{array}{r} 9\ 16 \\ 106 \\ - 87 \\ \hline \end{array}$

11. $\begin{array}{r} \blacksquare\ \blacksquare \\ 103 \\ - 25 \\ \hline \end{array}$

12. $\begin{array}{r} \blacksquare\ \blacksquare \\ 105 \\ - 39 \\ \hline \end{array}$

PRACTICE

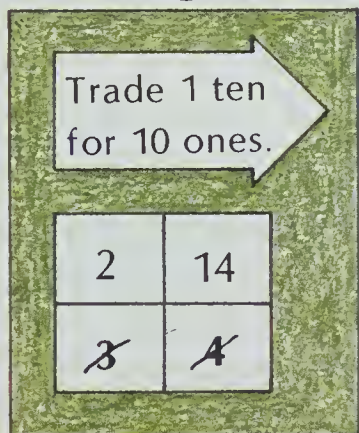
Find the difference between each pair.

1. 56 and 78
2. 78 and 92
3. 92 and 102
4. 102 and 95
5. 95 and 164
6. 164 and 80
7. 80 and 131
8. 131 and 76
9. 76 and 104
10. 104 and 88
11. 88 and 106
12. 106 and 70
13. 70 and 95
14. 95 and 121
15. 121 and 50
16. 50 and 103
17. 103 and 98
18. 98 and 19
19. 19 and 53
20. 53 and 49
21. 49 and 132

Solve.

22. 74 blocks for an igloo.
Franz has used 36 blocks.
How far from done?
23. End up with 78 ice cubes.
Started with 100.
How many were used?
24. 93 snowflakes are small.
26 snowflakes are large.
How many fewer are large?
25. 78 spoons.
167 hot chocolates.
How many drinks without spoons?

... and More about Trading Tens



1.

	■	■
1	2	7
2.

	■	■
1	1	8
3.

	■	■
1	6	6
4.

	■	■
1	0	7
5.

	■	■
1	0	8
6.

	■	■
1	0	0
7.

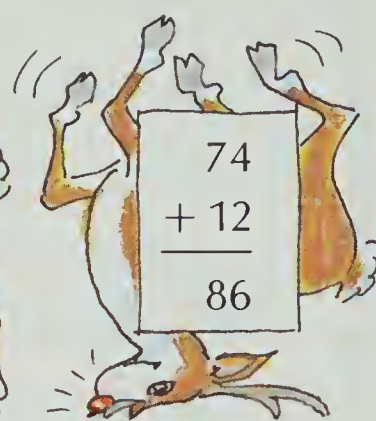
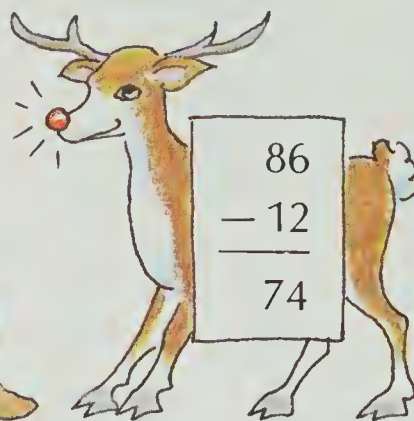
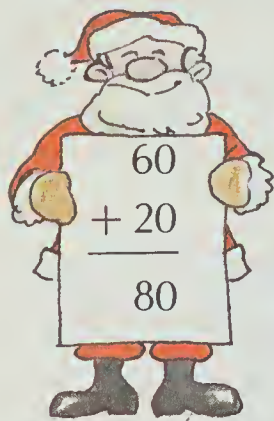
■	■	■
2	0	8
8.

■	■	■
3	0	6
9.

■	■	■
4	0	2

Checking Your Work

Adding is undone by subtracting. Subtracting is undone by adding.



1.
$$\begin{array}{r} 24 \\ + 12 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 36 \\ - 12 \\ \hline 24 \end{array}$$
 ✓

2.
$$\begin{array}{r} 26 \\ + 38 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 54 \\ - 38 \\ \hline 16 \end{array}$$

3.
$$\begin{array}{r} 53 \\ - 17 \\ \hline 44 \end{array}$$

$$\begin{array}{r} 44 \\ + 17 \\ \hline 61 \end{array}$$

4.
$$\begin{array}{r} 72 \\ - 18 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 54 \\ + 18 \\ \hline 72 \end{array}$$
 ✓

EXERCISES

Undo by subtracting.

1.
$$\begin{array}{r} 50 \\ + 30 \\ \hline 80 \end{array}$$

2.
$$\begin{array}{r} 56 \\ + 31 \\ \hline 87 \end{array}$$

3.
$$\begin{array}{r} 35 \\ + 45 \\ \hline 80 \end{array}$$

4.
$$\begin{array}{r} 89 \\ + 34 \\ \hline 123 \end{array}$$

5.
$$\begin{array}{r} 47 \\ + 54 \\ \hline 101 \end{array}$$

Undo by adding.

6.
$$\begin{array}{r} 90 \\ - 40 \\ \hline 50 \end{array}$$

7.
$$\begin{array}{r} 93 \\ - 46 \\ \hline 47 \end{array}$$

8.
$$\begin{array}{r} 106 \\ - 19 \\ \hline 97 \end{array}$$

9.
$$\begin{array}{r} 145 \\ - 92 \\ \hline 53 \end{array}$$

10.
$$\begin{array}{r} 165 \\ - 87 \\ \hline 78 \end{array}$$

PRACTICE

Undo these problems. Correct any wrong answers.

$$\begin{array}{r} 1. \quad 46 \\ + 31 \\ \hline 87 \end{array}$$

$$\begin{array}{r} 2. \quad 63 \\ - 28 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 3. \quad 42 \\ - 19 \\ \hline 37 \end{array}$$

$$\begin{array}{r} 4. \quad 35 \\ + 25 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 5. \quad 80 \\ - 17 \\ \hline 63 \end{array}$$

Do the problems. Check by undoing.

$$\begin{array}{r} 6. \quad 64 \\ + 27 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 38 \\ + 42 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 46 \\ + 32 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 82 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 56 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 87 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 63 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 90 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 50 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 67 \\ - 9 \\ \hline \end{array}$$

$$16. \quad 56 + 37$$

$$17. \quad 56 - 37$$

$$18. \quad 72 + 18$$

$$19. \quad 72 - 18$$

$$20. \quad 67 - 15$$

$$21. \quad 67 + 15$$

$$22. \quad 115 - 18$$

$$23. \quad 45 + 55$$

$$24. \quad 56 + 82$$

Undone Table

Copy this table.

Try to complete it.



+		3		4			7
6			15			14	
	13		17	12	14		
5	10				11		
	14	12				17	
			16		13		14

Mixed-up Problems: + and -

57 kittens

37 mittens

28 dry socks

53 wet socks

72 kids snowed in

18 kids snowed on

39 boots here

126 boats there

112 snowballs hit it

47 miss it

37 cups of cocoa

19 of them are hot

1. How many more kittens?

2. How many in all?

3. How many socks?

4. What is the difference?

5. How many more were in?

6. How many kids altogether?

7. How many things somewhere?

8. How many fewer boots?

9. How many snowballs altogether?

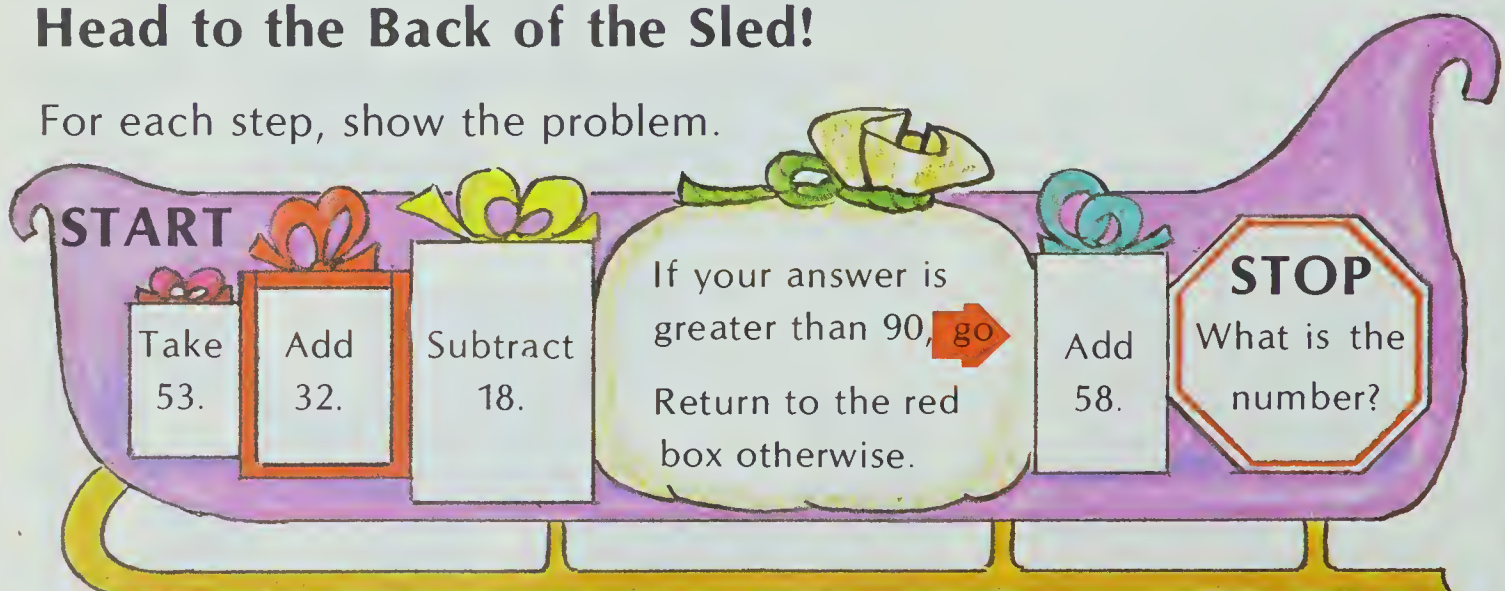
10. How many more hit than miss?

11. How many are not hot?

12. How many cups in all?

Head to the Back of the Sled!

For each step, show the problem.

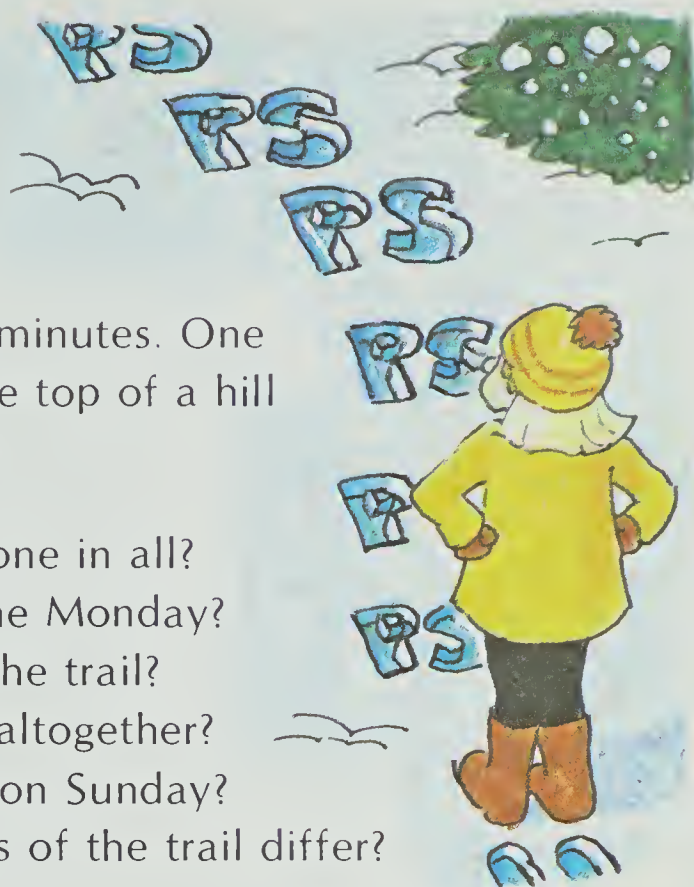


Animal Tracks

Jill follows animal tracks in the snow. She went for 19 minutes on Sunday and saw 58 tracks.

Monday she found 82 tracks in 37 minutes. One trail of tracks went 42 metres to the top of a hill and 16 metres down the other side.

1. How many minutes was she gone in all?
2. How much longer was she gone Monday?
3. What was the total length of the trail?
4. How many tracks did she see altogether?
5. How many fewer did she find on Sunday?
6. By how much do the two parts of the trail differ?



REVIEW

Subtract.

A19	1.	$\begin{array}{r} 126 \\ - 78 \\ \hline \end{array}$	2.	$\begin{array}{r} 111 \\ - 23 \\ \hline \end{array}$	3.	$\begin{array}{r} 130 \\ - 32 \\ \hline \end{array}$	4.	$\begin{array}{r} 174 \\ - 85 \\ \hline \end{array}$	5.	$\begin{array}{r} 143 \\ - 49 \\ \hline \end{array}$
-----	----	--	----	--	----	--	----	--	----	--

Find the difference between:

A20	6.	26 and 58	7.	62 and 108	8.	137 and 53
-----	----	-----------	----	------------	----	------------

Check your answers by undoing.

A21	9.	$\begin{array}{r} 35 \\ + 52 \\ \hline \end{array}$	10.	$\begin{array}{r} 72 \\ + 59 \\ \hline \end{array}$	11.	$\begin{array}{r} 63 \\ - 21 \\ \hline \end{array}$	12.	$\begin{array}{r} 105 \\ - 29 \\ \hline \end{array}$	13.	$\begin{array}{r} 181 \\ - 92 \\ \hline \end{array}$
-----	----	---	-----	---	-----	---	-----	--	-----	--

TEST

UNIT 5

Subtract.

$$\begin{array}{r} 1. \quad 56 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 82 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 75 \\ - 50 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 64 \\ - 61 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 39 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 65 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 72 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 48 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 53 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 61 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 43 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 82 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 97 \\ - 63 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 32 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 71 \\ - 35 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 120 \\ - 40 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 132 \\ - 71 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 139 \\ - 89 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 145 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 122 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 150 \\ - 96 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 106 \\ - 34 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 102 \\ - 16 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 105 \\ - 95 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 100 \\ - 37 \\ \hline \end{array}$$

Find the difference between:

26. 35 and 62

27. 183 and 95

28. 35 and 102

Do the problem. Then check the answer.

$$\begin{array}{r} 29. \quad 43 \\ + 15 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 27 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 83 \\ - 52 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 135 \\ - 78 \\ \hline \end{array}$$

33 candies
48 cookies

33. How many more cookies?

34. How many in all?

ADDITION

Add.

$$\begin{array}{r} 1. \quad 5 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 9 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 8 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 9 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 60 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 10 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 35 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 73 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 65 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 38 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 62 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 88 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 36 \\ + 53 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 27 \\ + 66 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 74 \\ + 74 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 96 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 38 \\ + 61 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 74 \\ + 50 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 76 \\ + 43 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 48 \\ + 59 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 86 \\ + 96 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 35 \\ + 85 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 94 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 97 \\ + 97 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 4 \\ 8 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 7 \\ 7 \\ + 7 \\ \hline \end{array}$$

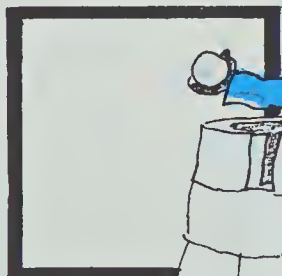
$$\begin{array}{r} 28. \quad 70 \\ 50 \\ + 80 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 6 \\ 5 \\ 7 \\ + 9 \\ \hline \end{array}$$

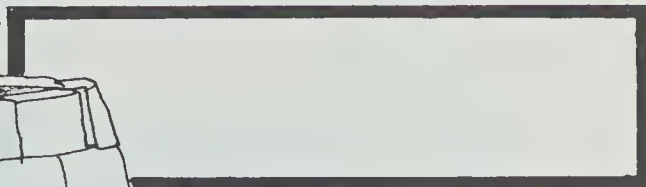
$$\begin{array}{r} 30. \quad 40 \\ 50 \\ 20 \\ + 90 \\ \hline \end{array}$$

Find the perimeter of each rectangle.

31.



32.



33.



UNIT 6

MEASUREMENT



The Metric Zoo

Donna's sister made a collage using paper cutouts.
Use your centimetre ruler to measure the plants and animals.

Find the **height**.

- | | | |
|--------------|---------------------|----------------|
| 1. the panda | 2. the eagle's pole | 3. the bush |
| 4. the tree | 5. the hippopotamus | 6. the giraffe |

Find the **width**.

- | | | |
|--------------------|-----------------------|--------------------------|
| 7. the bush | 8. the wading pool | 9. the hippopotamus |
| 10. the tree trunk | 11. the eagle's wings | 12. the purple rectangle |

Find the **length**.

- | | | |
|---------------|-----------------------|--------------------------|
| 13. the snake | 14. the monkey's tail | 15. the purple rectangle |
|---------------|-----------------------|--------------------------|

Find the **perimeter**.

- | | | |
|----------------------|---------------------|--------------------------|
| 16. the eagle's pole | 17. the wading pool | 18. the purple rectangle |
|----------------------|---------------------|--------------------------|

Complete each equation.

19. $5 \text{ km} = \blacksquare \text{ m}$

21. $8 \text{ m} = \blacksquare \text{ cm}$

23. $2 \text{ m} = \blacksquare \text{ cm}$

25. $4\text{m} + 3\text{dm} + 8\text{cm} = \blacksquare \text{ cm}$

27. $2\text{m} + 7\text{dm} + 0\text{cm} = \blacksquare \text{ cm}$

29. $7\text{m} + 2\text{cm} = \blacksquare \text{ cm}$

20. $\blacksquare \text{ km} = 7000 \text{ m}$

22. $\blacksquare \text{ m} = 300 \text{ cm}$

24. $\blacksquare \text{ m} = 900 \text{ cm}$

26. $9\text{m} + 6\text{dm} + 0\text{cm} = \blacksquare \text{ cm}$

28. $7\text{m} + 0\text{dm} + 6\text{cm} = \blacksquare \text{ cm}$

30. $1\text{m} + 3\text{cm} = \blacksquare \text{ cm}$

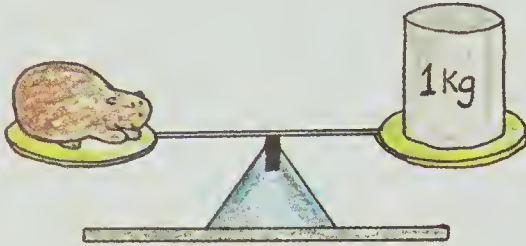
BEWARE!
Max will eat
your mistakes.

Choosing the Units

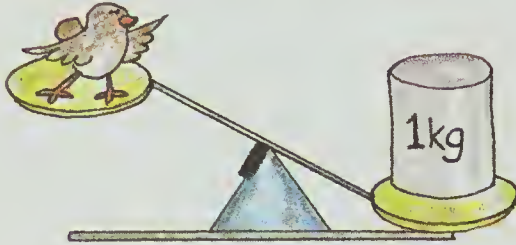
The **gram** and **kilogram** are **units of mass**.

One thousand grams equals one kilogram.

$$1000 \text{ g} = 1 \text{ kg}$$



The hamster and 1 kg are **balanced**.
The hamster **has a mass** of 1 kg.



The sparrow is **lighter** than 1 kg.
One kilogram is **heavier** than the sparrow.

Each has a mass of about 1 g.

Each has a mass of about 5 g.



EXERCISES

Choose the better answer.

1. A small rabbit



1 g or 1 kg

2. A tack



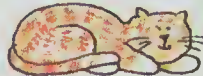
1 g or 1 kg

3. An earthworm



7 g or 7 kg

4. A cat



3 g or 3 kg

5. A dime



2 g or 2 kg

PRACTICE

Complete each equation.

1. $1 \text{ kg} = \blacksquare \text{ g}$

2. $6 \text{ kg} = \blacksquare \text{ g}$

3. $\blacksquare \text{ kg} = 3000 \text{ g}$

4. $\blacksquare \text{ kg} = 8000 \text{ g}$

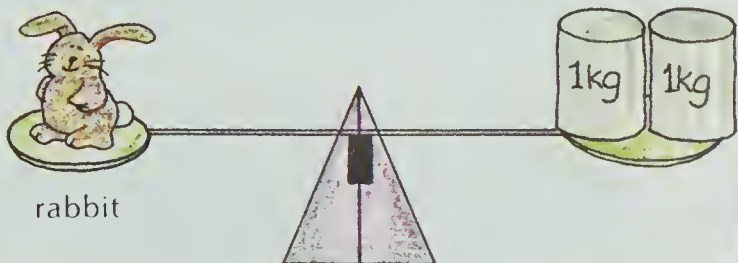
Choose the more **reasonable** mass and length.

	Mass	Length
a sheepdog	5. 20 g or 20 kg	6. 1 cm or 1 m
a snake	7. 1 g or 1 kg	8. 1 cm or 1 m
a spider	9. 4 g or 4 kg	10. 5 cm or 5 m
a squash	11. 1 g or 1 kg	12. 20 km or 20 cm
a tricycle	13. 10 g or 10 kg	14. 1 km or 1 m
an eraser	15. 10 g or 10 kg	16. 5 cm or 5 dm
a telephone	17. 3 g or 3 kg	18. 2 dm or 2 km
telephone wires	19. 1 kg or 1000 kg	20. 5 dm or 5 km

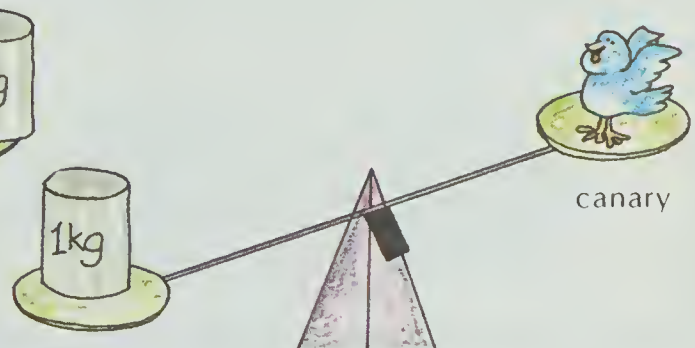
Mass Messages

Write two sentences to describe each picture.

1.

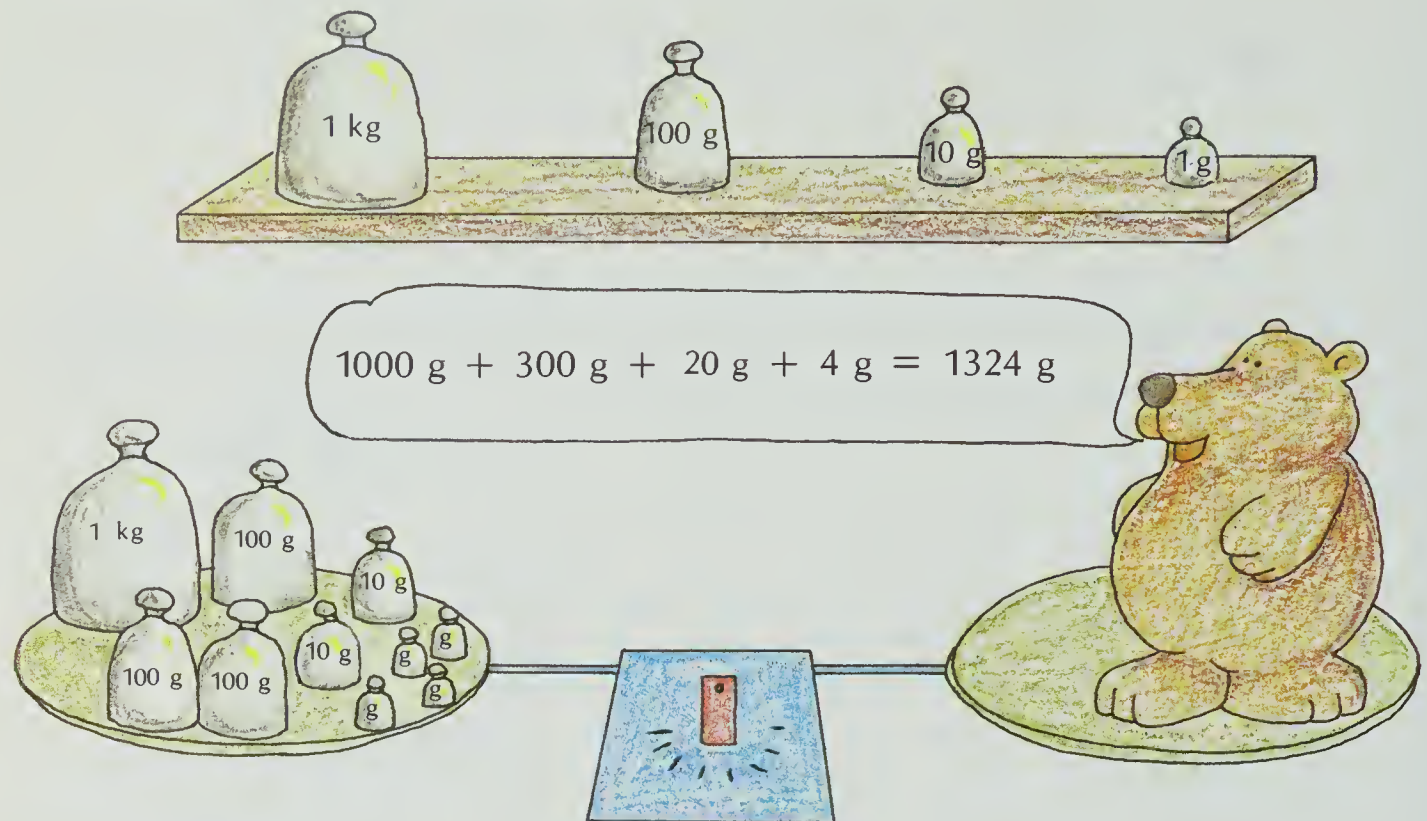


2.



A Way to Measure Mass

A **pan balance** can be used with these masses

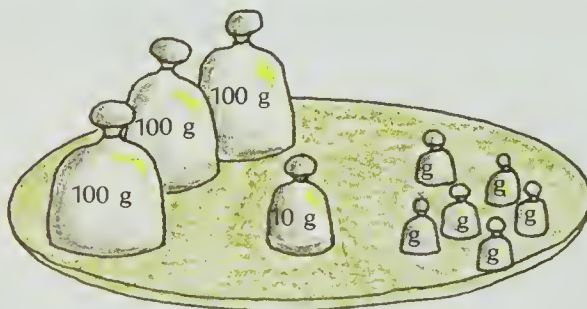


The clay bear has a mass of 1324 g.

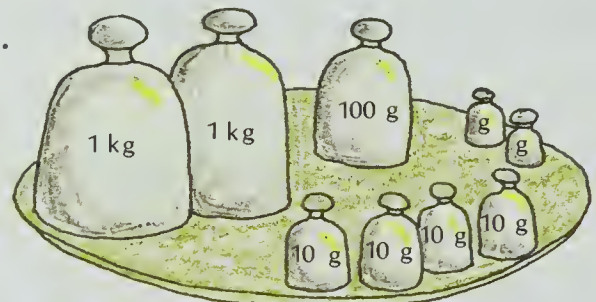
EXERCISES

Find each total mass.

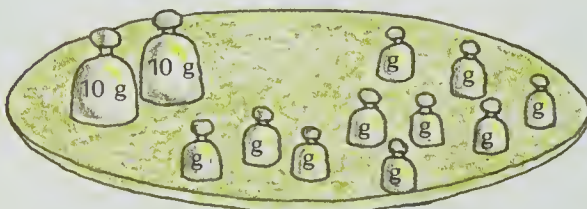
1.



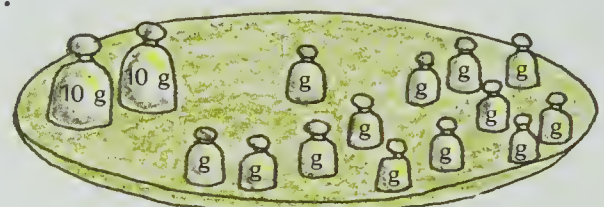
2.



3.







































4.







PRACTICE

Find the total mass.

1. 3 , 5 , 3 , 8 
2. 5 , 8 , 0 , 2 
3. 1 , 2 , 0 , 4 
4. 2 , 1 , 4 , 6 
5. 3 , 5 , 9 , 7 
6. 2 , 0 , 3 , 5 
7. 6 , 2 , 7 
8. 6 , 4 , 2 
9. 1 , 2 , 15 
10. 2 , 10 , 0 

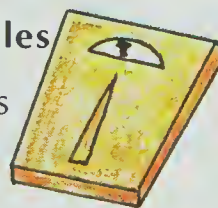
11. Copy and complete the table. Use a pan balance.

	I estimate about					TOTAL (g)
shoe	■ kg					
jar	■ kg					
rock	■ g					
ball	■ g					

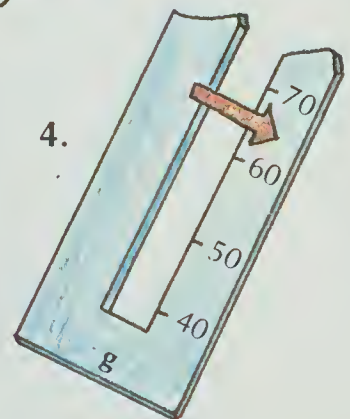
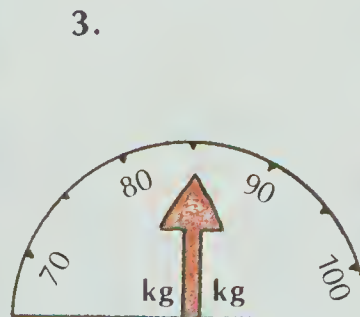
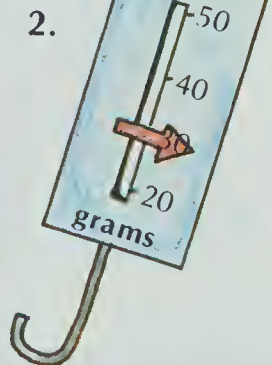
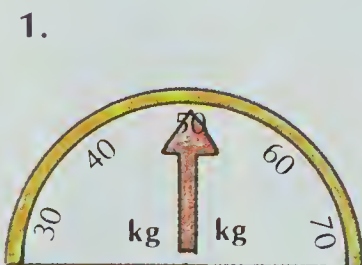
Other Ways

Record each mass.

bathroom scales
kilograms



spring scales
grams

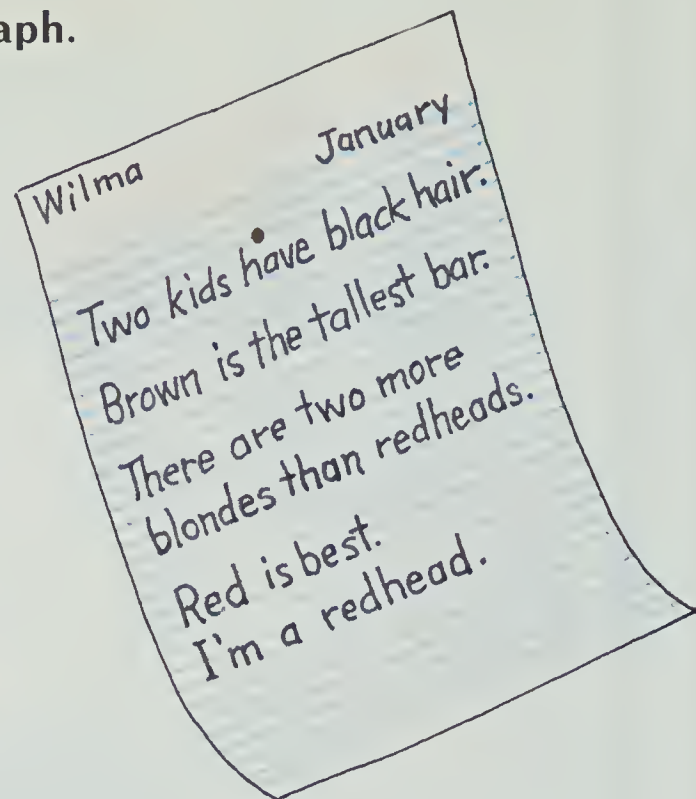


Graphing with Classes

Wilma's math group made this **bar graph**.

Wilma wrote down things she saw.

HAIR COLOUR GRAPH

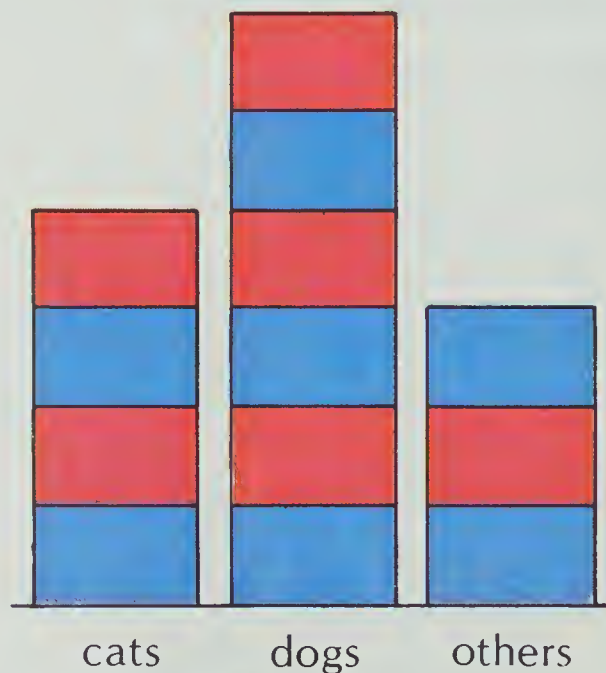


EXERCISES

Answer in a sentence.

1. How many students like dogs most?
2. In all, how many children like cats or dogs most?
3. How many fewer like cats than like dogs?
4. What is the total number of students shown on the graph?
5. What could the **other** pets be? Can you be sure?

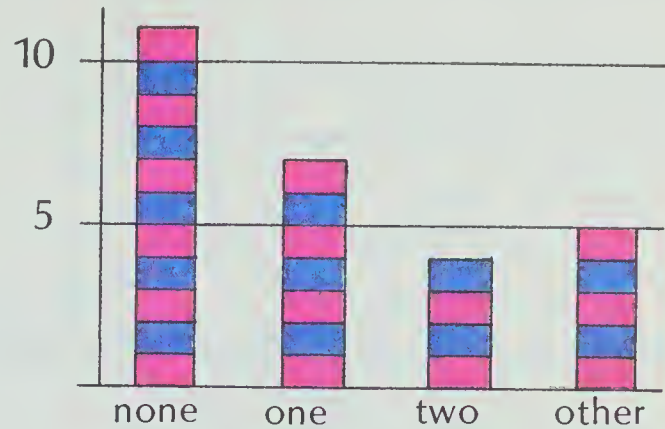
Favourite Pets



PRACTICE

Answer in a sentence.

1. How many students have no sisters?
2. How many have 1 or 2 sisters?
3. How many more children have one sister than have two sisters?
4. What could **other** mean?



How Many Sisters?

Make a bar graph from each tally sheet.



lion	###	whale	###
tiger		elephant	### ###

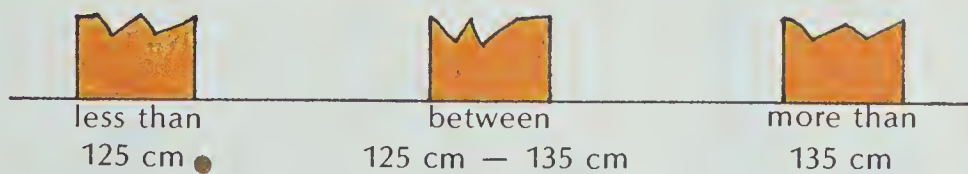


blue	### ###	orange	
red	###	green	### ###
purple	/	yellow	

Metric Measurement Graphs

Find the height of each classmate.

Then complete the bar graphs.

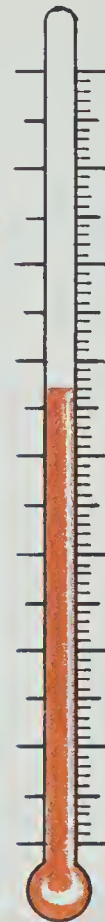


Student Heights

Temperature

The **thermometer** shows 17 degrees Celsius.
This is usually written as **17°C**.

Most outdoor temperatures
come between the arrows.



40°C
30°C
Your body temperature
is about 37°C.

20°C
21°C is a comfortable
indoor temperature.

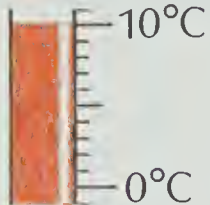
10°C
0°C
Ice freezes at 0°C.

Temperatures **below
zero** are very cold.

EXERCISES

Write the temperatures.

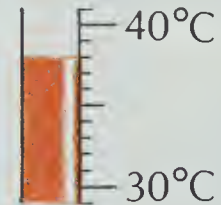
1.



2.



3.



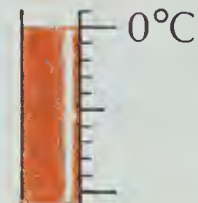
4.



5.



6.



PRACTICE

What is the temperature?

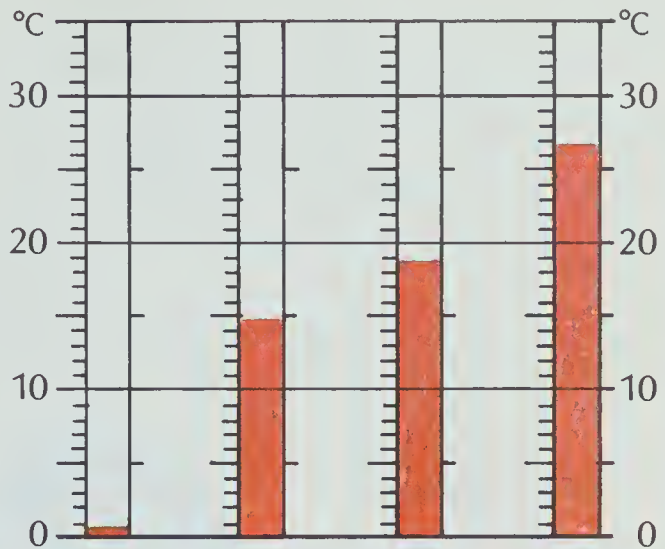
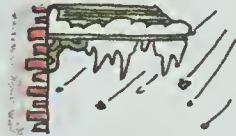
1. in Ottawa 2. in Surrey
3. in Inuvik 4. in Calgary
5. Which cities are warmer than ten degrees Celsius?

Match these with a city.

6.



7.



Inuvik Calgary Ottawa Surrey
Canadian Temperatures

What is the difference?

8. between Surrey and Ottawa
9. between Calgary and Surrey

REVIEW

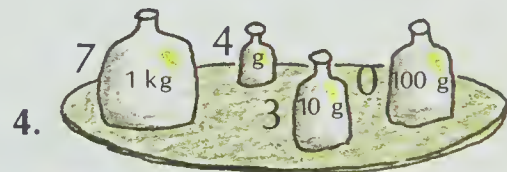
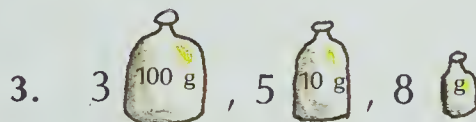
M8

Which mass and height make sense for a child?

1. 38 g or 38 kg
2. 120 cm or 120 m

M9

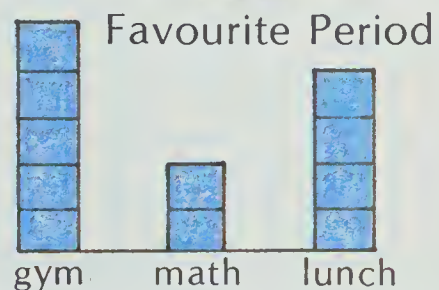
Find the total mass.



GR1

Answer each question.

5. How many liked lunch?
6. How many more liked **gym** than **math**?
7. How many voted in all?



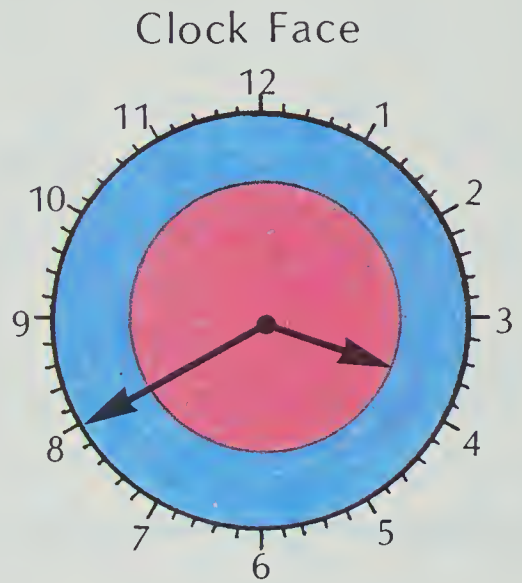
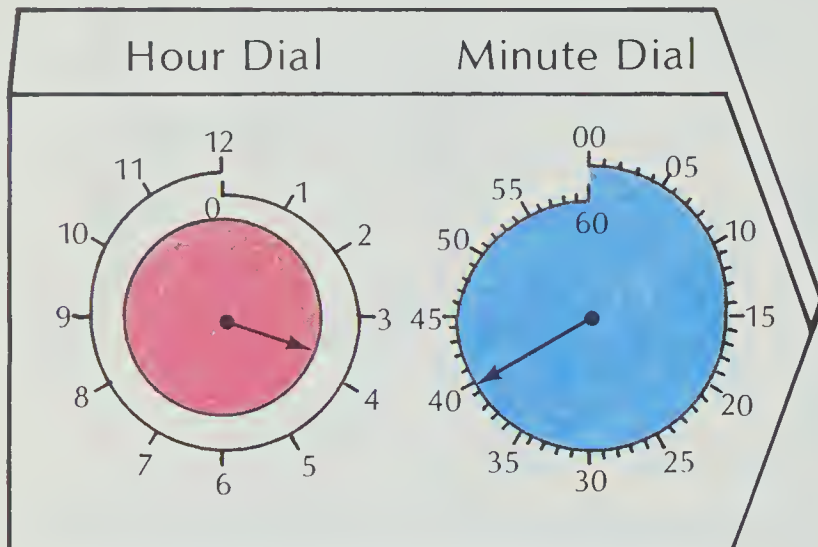
Clock Dials

There are 12 hours in half a day.

The **hour hand** shows over 3 hours on the **hour dial** below.

There 60 minutes in an hour.

The minute hand shows 40 minutes on the minute dial.

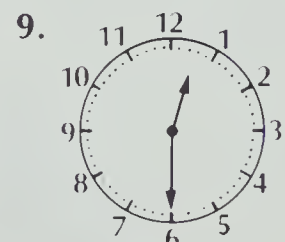
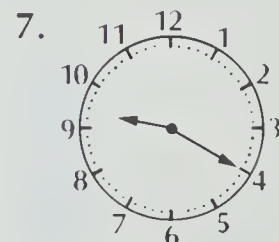
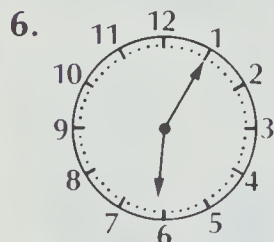
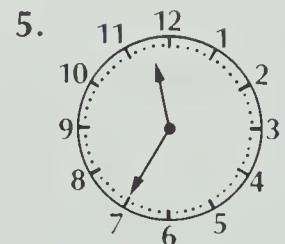
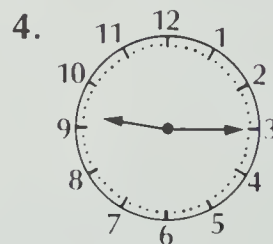
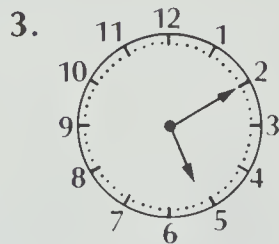
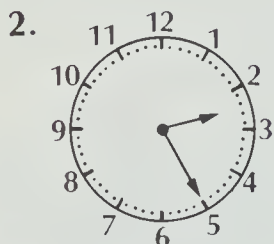


For **3 hours** and **40 minutes** you write **3:40**.

EXERCISES

- Count by 5's from 0 to 55.

Write how many hours. Write how many minutes.



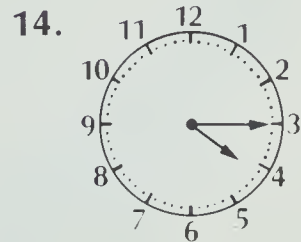
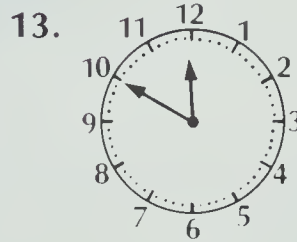
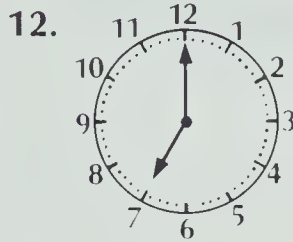
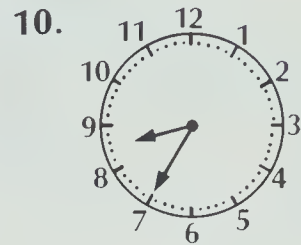
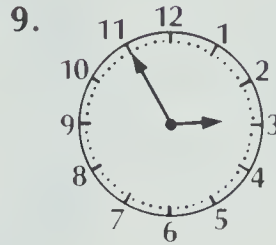
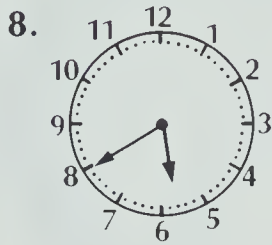
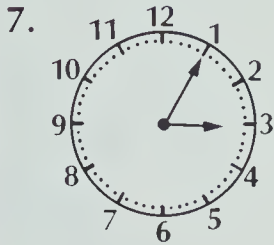
- Which is longer: the minute **hand** or the hour **hand**?

PRACTICE

Write the time.

9:20

1. 7 hours and 15 minutes
2. 3 hours and 20 minutes
3. 2 hours and 45 minutes
4. 1 hour and 50 minutes
5. 8 hours and no minutes
6. 12 hours and 5 minutes



Show these times. Trace the clock face on page 110.

- | | | | |
|----------|----------|----------|-----------|
| 15. 6:30 | 16. 8:00 | 17. 3:45 | 18. 9:15 |
| 19. 1:50 | 20. 4:05 | 21. 2:35 | 22. 12:25 |

It's About Time for You

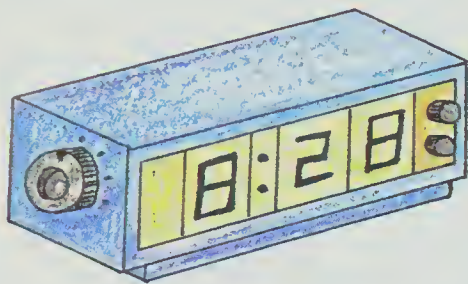
Complete a **reasonable** sentence.

- | | |
|-------------------------------|---------------------------------|
| 1. I eat lunch in about: | 15 seconds or 15 minutes |
| 2. I sleep for about: | 9 hours or 9 minutes |
| 3. I blink about every: | 30 seconds or 30 minutes |
| 4. My heart beats once every: | minute or second |
| 5. A school day lasts about: | 6 hours or 6 minutes |
| 6. I breathe once every: | 12 seconds or 12 minutes |
| 7. Each day has exactly: | 24 minutes or 24 hours |

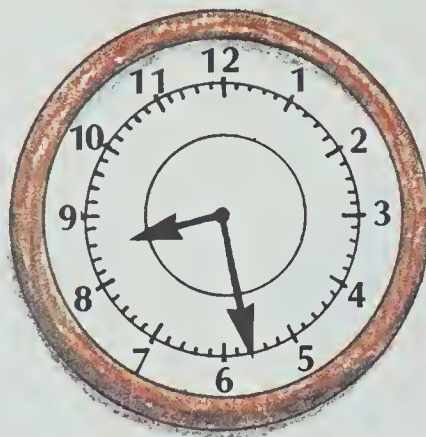
Telling Time to the Minute

The two clocks show the same time.

This is a **digital face**.



This is a **dial face**.



5

10

15

20

25

26

27

28



We say eight twenty-eight or twenty-eight **past** eight.

PRACTICE

Count using 5's and 1's.

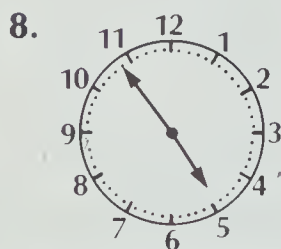
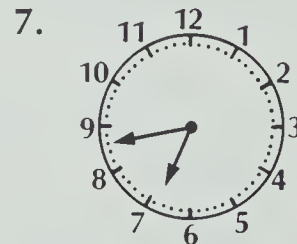
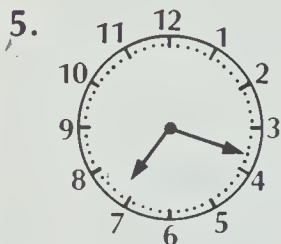
1. to 18

2. to 38

3. to 43

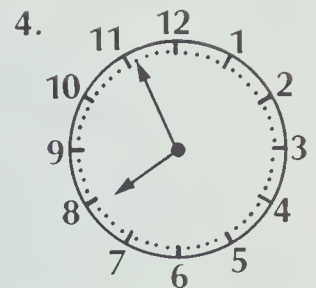
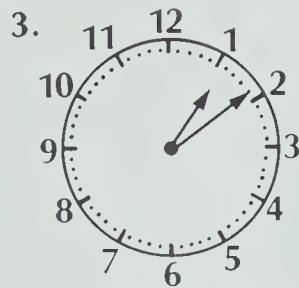
4. to 54

Show the time on a digital face.



PRACTICE

Show the time on a different clock face.



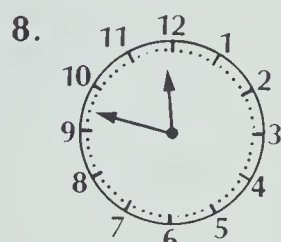
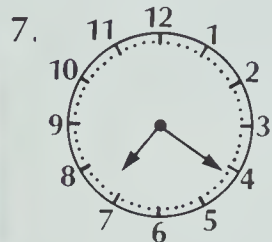
4. 11:12

5. 1:49

6. 3:39

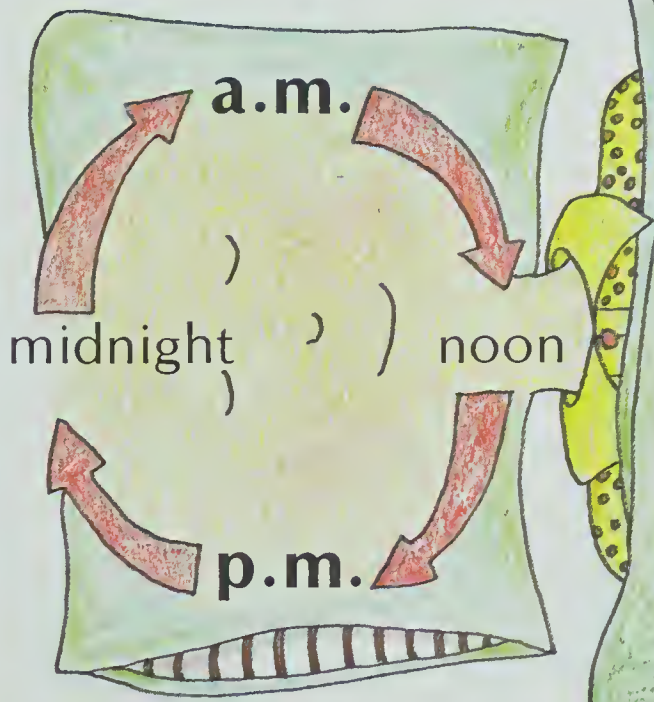
7. 6:41

Write each time in **two** ways. Here's a helping hand!



9. 1:27

10. 2:11



When do these happen for you?

Bedtime: 8:30 p.m.

- | | |
|------------------|----------------|
| 1. wake up | 2. breakfast |
| 3. dinner | 4. school ends |
| 5. school starts | 6. gym time |
| 7. math time | 8. recess |

Metric Comparisons

Time: Which is later?

- | | |
|--------------------------|--------------------------|
| 1. 3:35 or 2:58 | 2. 7:31 or 6:29 |
| 3. 1:49 or 1:52 | 4. 6:19 or 6:35 |
| 5. noon or 11:00 a.m. | 6. noon or 3:00 p.m. |
| 7. midnight or 1:00 a.m. | 8. midnight or 8:30 p.m. |

Length: Which is longer?

- | | |
|-----------------------|------------------------|
| 9. your arm or 1 m | 10. your nose or 9 cm |
| 11. your foot or 1 dm | 12. your thumb or 3 cm |
| 13. 103 cm or 1 m | 14. 698 cm or 7 m |
| 15. 2000 m or 1 km | 16. 3900 m or 4 km |

Mass: Which is heavier?

- | | |
|------------------------|------------------------|
| 17. your shoe or 20 kg | 18. your chair or 20 g |
| 19. your pencil or 1 g | 20. your desk or 1 kg |
| 21. 2000 g or 3 kg | 22. 3000 g or 2 kg |
| 23. 1042 g or 1 kg | 24. 7100 g or 8 kg |

More! Which is longer?

- | | |
|----------------------------|-----------------------|
| 25. 93 cm and 58 cm | or 142 cm |
| 26. 65 cm and 75 cm | or 142 cm |
| 27. 1 hour and 43 minutes | or 99 minutes |
| 28. 1 hour and 90 minutes | or 140 minutes |
| 29. 2 hours and 10 minutes | or 180 minutes |
| 30. 3 hours and 20 minutes | or 250 minutes |

Models Please

Working with a **model** helps you solve problems.
Use a clock model to find the answers.

1. Ben started at 2:30.
He worked 20 minutes.
When did he stop?



2. Jill came at 6:15.
She left in 30 minutes.
When did she leave?

3. The cat left at 6:13.
He was gone 28 minutes.
When did he return?

4. The lion began at 10:55.
He played for 10 minutes.
When did he stop?

5. The bear woke up at 7:45.
She ate for 34 minutes.
When was she done?

6. The dog came at 9:30.
It left after 2 hours.
When did it go?

7. The chimp arrived at 4:27.
She stayed one hour
and 8 minutes.
When did she leave?

In 35 minutes, what time will it be?

The time is now:

8. 4:20 9. 6:15 10. 3:50 11. 10:43

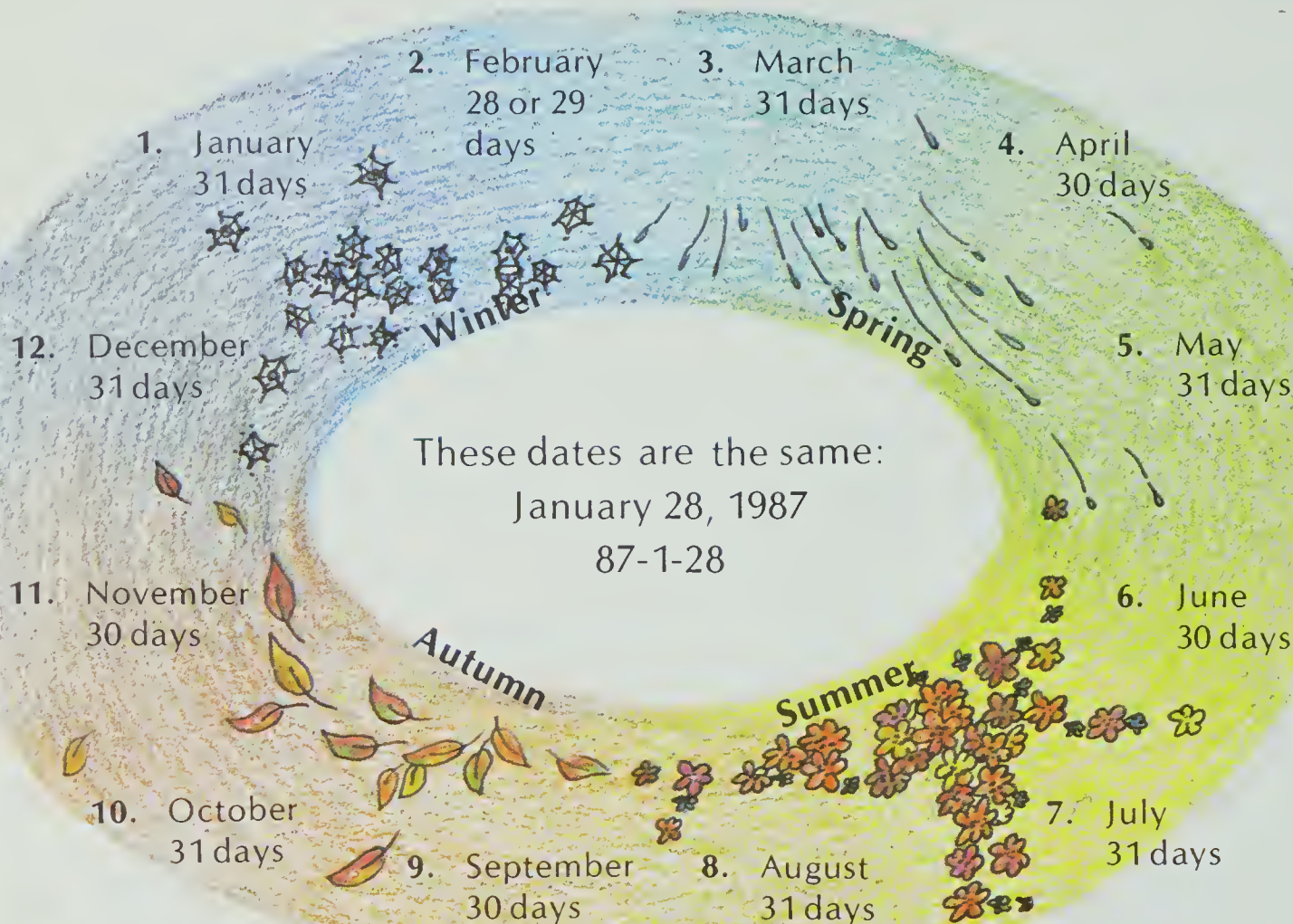
In 3 hours and 15 minutes, what time will it be?

The time is now:

12. 4:15 13. 8:30 14. 4:55 15. 10:45

Dates: Year, Month, Day

The 12 months are in the same order each year.
Like the seasons, they form an endless pattern.



EXERCISES

Which is longer?

1. a month **or** a day
2. January **or** the 28th day
3. a month **or** a year
4. January **or** 1987

Order the parts of each date from the longest to the shortest.

Example: March 13, 1954 → 1954 March 13 → 54-3-13

5. December 25, 1930
6. April 7, 1999
7. September 19, 1984
8. August 31, 1986

PRACTICE

Write each date in a different way.

- | | | |
|------------------|------------------|--------------------|
| 1. May 17, 1979 | 2. June 2, 1985 | 3. April 15, 1976 |
| 4. March 8, 1986 | 5. July 31, 1984 | 6. August 24, 1987 |
| 7. 88-12-25 | 8. 78-10-3 | 9. 94-9-6 |
| 10. 86-2-17 | 11. 87-11-4 | 12. 84-8-31 |

Write the months.

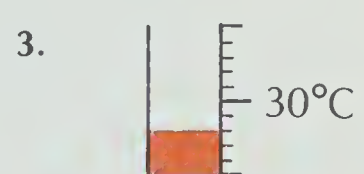
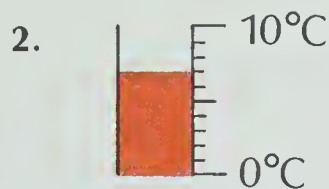
- | | | |
|--|---------------|---------------|
| 13. with 31 days | 14. of spring | 15. of winter |
| 16. with 30 days | 17. of summer | 18. of autumn |
| 19. Copy the chart. Write the missing dates. | | |

Yesterday	Today	Tomorrow
	June 3, 1985	
	May 31, 1987	
	89-2-20	
	95-11-1	

REVIEW

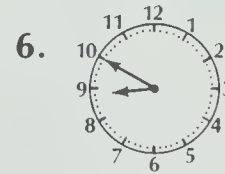
Write the temperatures.

M10



Change to a different clock face.

M11



M12



TEST

UNIT 6

Pick the more reasonable mass and length.



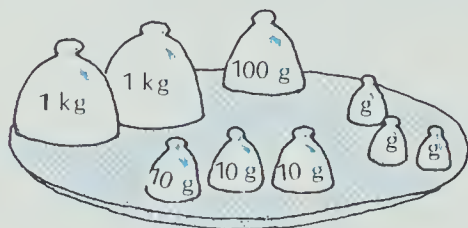
1. 35 cm or 35 m 2. 4 g or 4 kg



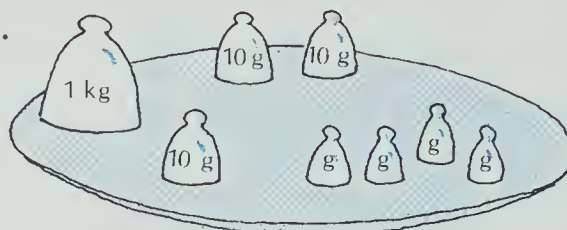
3. 7 m or 7 cm 4. 30 g or 30 kg

Find the total mass.

5.



6.



7.

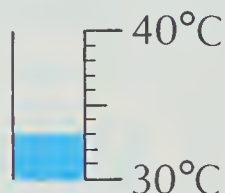


8.

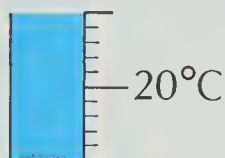


Write the temperature.

9.



10.



11.

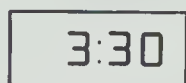


Show each time or date the other way.

12.



13.



14.



15.



16.



17.



18. May 15, 1987

19. June 14, 1947

20. 86-2-4

SUBTRACTION

Subtract.

$$\begin{array}{r} 1. \quad 59 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 91 \\ - 70 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 88 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 35 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 46 \\ - 41 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 17 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 35 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 52 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 60 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 92 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 83 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 42 \\ - 28 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 78 \\ - 69 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 61 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 30 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 130 \\ - 80 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 142 \\ - 71 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 146 \\ - 96 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 127 \\ - 50 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 124 \\ - 92 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 120 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 102 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 100 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 106 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 105 \\ - 98 \\ \hline \end{array}$$

Find the difference between:

26. 92 and 47

27. 23 and 110

Do the problem. Then check by undoing.

$$\begin{array}{r} 28. \quad 56 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 93 \\ + 48 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 65 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 162 \\ - 77 \\ \hline \end{array}$$

Solve.

35 cm

97 cm

32. How long altogether?

33. What is the difference in length?

UNIT 7

MULTIPLICATION FACTS I



Crack the Code

Add.

$$\begin{array}{r} 1 \\ 6 \\ +6 \\ \hline 12 \\ \text{T} \end{array}$$

$$\begin{array}{r} 4 \\ 4 \\ +4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ 30 \\ +30 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ 8 \\ +8 \\ \hline \end{array}$$



$$\begin{array}{r} 0 \\ 0 \\ +0 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ 8 \\ +8 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ 7 \\ +7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 10 \\ +4 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 6 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 5 \\ +5 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ 10 \\ +10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ 6 \\ +9 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 6 \\ +12 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 6 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 5 \\ +5 \\ \hline \end{array} \quad \begin{array}{r} 20 \\ 20 \\ +20 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ 4 \\ +4 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ 3 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ 9 \\ +9 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ 10 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ 2 \\ +5 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ 15 \\ +15 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ 2 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ 5 \\ +3 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ 5 \\ +6 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ 3 \\ +3 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ 12 \\ +12 \\ \hline \end{array}$$



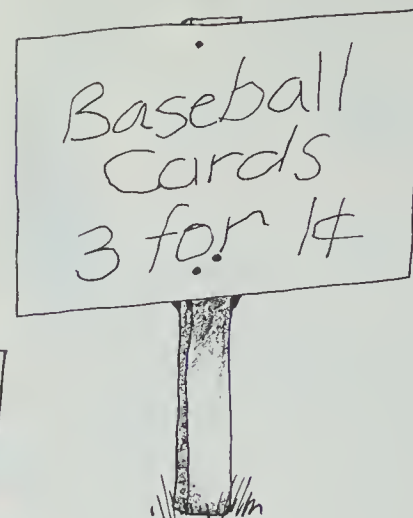
0	P
3	U
6	N
8	R
9	L
12	T
15	F
16	A

18	S
20	W
21	G
24	E
27	I
30	O
60	H

Skip Counting

How many baseball cards does 7¢ buy?

To find out, count by threes.



3	6	9	12	15	18	21
1¢	2¢	3¢	4¢	5¢	6¢	7¢

7¢ buys 21 cards.

EXERCISES

Copy and complete the charts.

1.



10					
1¢	2¢	3¢	4¢	5¢	6¢

2.



2					
1¢	2¢	3¢	4¢	5¢	6¢

Add.

3. $4 + 4$

4. $8 + 4$

5. $12 + 4$

6. $16 + 4$

7. $3 + 3$

8. $6 + 3$

9. $9 + 3$

10. $12 + 3$

Copy and complete the charts.

11.

	1	2	3	4	5	6
wheels	4					

12.

	1	2	3	4	5	6
legs	3					

13.

	1	2	3	4	5	6
ears	2					

14.

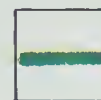
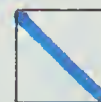
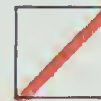
	1	2	3	4	5	6
fingers	5					

EXERCISES

Copy this chart.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

- Count by twos. Mark the boxes with a red line.
How many marks did you make?
- Count by fours. Mark the boxes with a blue line.
How many marks did you make?
- Count by threes. Mark the boxes with a green line.
How many marks did you make?



Complete the patterns. Use your chart.

- 2, 4, ■, ■, ■, 12, ■
- 11, 12, ■, ■, ■, ■
- , 6, 9, 12, ■, ■, ■
- , 50, 60, ■, ■, ■, 100
- 5, ■, ■, 20, ■, ■, 35
- 4, ■, 12, 16, ■, ■, ■,

- Name the boxes that have all three marks. There are four.

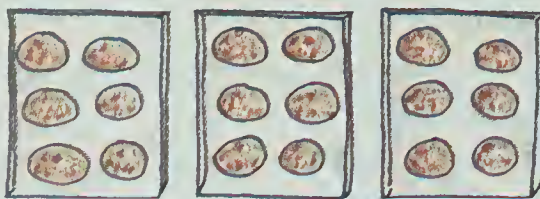
Who am I?

I'm not so very large,
Just over 53.
Keep counting by fives,
My name you soon will see.
Who am I?

Counting by sixes,
But not past 22,
I'm a little past 16.
So who am I to you?

Addition and Multiplication

How many cookies?



There are: 3 groups of 6 cookies

You may **add**: $6 + 6 + 6 = 18$

Or: $3 \text{ sixes} = 18$

You may **multiply**: $3 \times 6 = 18$

You read this as: **Three times six equals eighteen.**

There are 18 cookies.

EXERCISES

Copy and complete each equation.



4 groups of 3 brownies

$$3 + 3 + 3 + 3 = \blacksquare$$

$$4 \text{ threes} = \blacksquare$$

$$4 \times 3 = \blacksquare$$

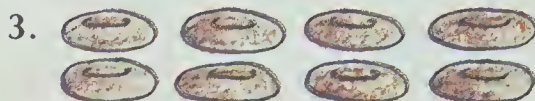


2 groups of 5 cupcakes

$$5 + 5 = \blacksquare$$

$$2 \text{ fives} = \blacksquare$$

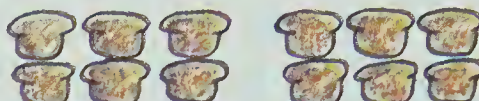
$$2 \times 5 = \blacksquare$$



$$2 + 2 + 2 + 2 = \blacksquare$$

$$4 \text{ twos} = \blacksquare$$

$$4 \times 2 = \blacksquare$$



$$6 + 6 = \blacksquare$$

$$2 \text{ sixes} = \blacksquare$$

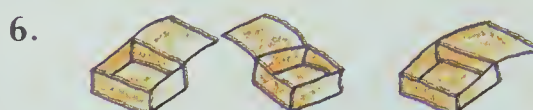
$$2 \times 6 = \blacksquare$$



$$1 + 1 + 1 = \blacksquare$$

$$3 \text{ ones} = \blacksquare$$

$$3 \times 1 = \blacksquare$$



$$0 + 0 + 0 = \blacksquare$$

$$3 \text{ zeros} = \blacksquare$$

$$3 \times 0 = \blacksquare$$

PRACTICE

Copy and complete.

1. 5 groups of 2

$$2 + 2 + 2 + 2 + 2 = \blacksquare$$

$$5 \times 2 = \blacksquare$$

2. 4 groups of 4

$$\blacksquare + \blacksquare + \blacksquare + \blacksquare = 16$$

$$\blacksquare \times 4 = 16$$

3. 3 groups of 5

$$5 + 5 + 5 = \blacksquare$$

$$3 \times \blacksquare = 15$$

4. 6 threes

$$3 + 3 + 3 + 3 + 3 + 3 = \blacksquare$$

$$6 \times 3 = \blacksquare$$

5. 4 threes

$$\blacksquare + \blacksquare + \blacksquare + \blacksquare = 12$$

$$\blacksquare \times 3 = 12$$

6. 5 ones

$$1 + 1 + 1 + 1 + 1 = \blacksquare$$

$$\blacksquare \times \blacksquare = 5$$

7. $0 + 0 + 0 = \blacksquare$

$$\blacksquare \times 0 = \blacksquare$$

8. $5 + 5 = \blacksquare$

$$2 \times \blacksquare = 10$$

9. $3 + 3 + 3 = \blacksquare$

$$\blacksquare \times \blacksquare = 9$$

10. 9 twos = \blacksquare

$$\blacksquare \times \blacksquare = 18$$

11. 3 fours = \blacksquare

$$\blacksquare \times \blacksquare = 12$$

12. 2 sevens = \blacksquare

$$\blacksquare \times \blacksquare = 14$$

Multiply.

13. 2×9

14. 3×2

15. 3×4

16. 4×5


17. 2×5

18. 4×4

Solve.

19. 6 children have

3  each.

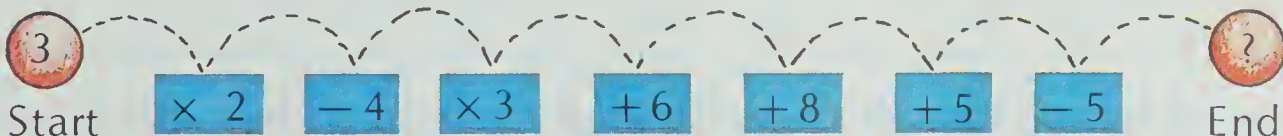
How many  in all?

20. 4 plates with

5  on each

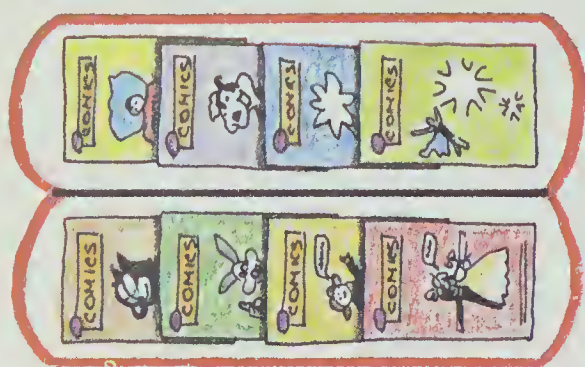
How many  in all?

MATHFUN



Order in Multiplication

You can think of 8 in two ways.

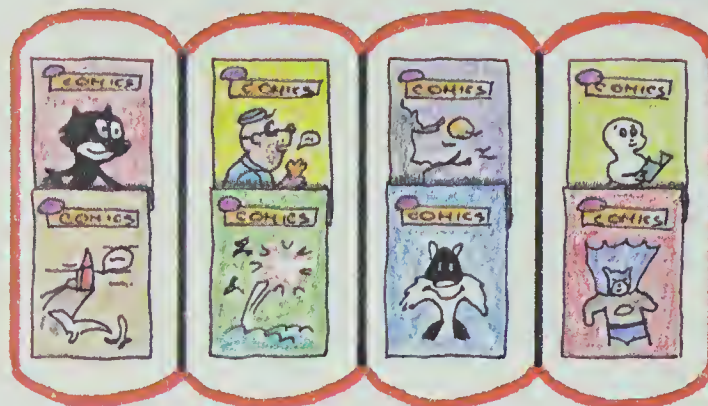


2 groups of 4

2 fours = 8

$$2 \times 4 = 8$$

↑ ↑ ↑
factor factor product



4 groups of 2

4 twos = 8

$$4 \times 2 = 8$$

↑ ↑ ↑
factor factor product

or

The **product** is the same both ways.

The order of the factors doesn't change the product.

EXERCISES

Copy and complete each equation.

1.

$$2 \times 3 = \blacksquare$$

2.

$$3 \times 2 = \blacksquare$$

3.

$$3 \times \blacksquare = 15$$

4.

$$5 \times \blacksquare = 15$$

5.

$$3 \times \blacksquare = 12$$

6.

$$4 \times \blacksquare = 12$$

7. 2 threes = \blacksquare twos

8. 3 fives = \blacksquare threes

9. $1 \times 4 = 4 \times \blacksquare$

10. $3 \times \blacksquare = 4 \times 3$

PRACTICE

Copy each question. Put the correct numerals in the blanks.

1. $2 \times 9 = 9 \times \blacksquare$
2. $7 \times 2 = \blacksquare \times 7$
3. $2 \times 10 = \blacksquare \times 2$
4. $2 \times 0 = 0 \times \blacksquare$
5. $1 \times 4 = \blacksquare \times 1$
6. $4 \times 3 = 3 \times \blacksquare$
7. 2 fives = \blacksquare
8. 5 twos = \blacksquare
9. 6 ones = \blacksquare
10. 1 six = \blacksquare
11. 7 zeroes = \blacksquare
12. 0 sevens = \blacksquare

Multiply.

13. 2×6
14. 6×2
15. 3×4
16. 4×3
17. 2×2
18. 4×5
19. 5×4
20. 3×3
21. 2×5
22. 5×2
23. 4×4
24. 1×1

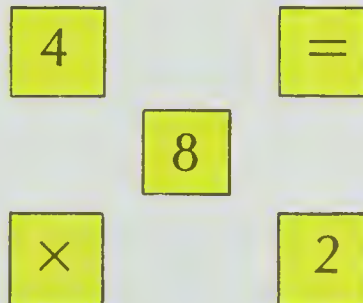
Solve.

25. 4 rows
2 books in each row
How many books in all?
Draw a picture.
26. 2 boxes
4 magazines in each box
How many magazines?
Draw a picture.

MATHFUN

Make cards like these.

Arrange them in two ways
to show multiplication facts.



Operations: $+$ $-$ \times

addition subtraction multiplication

First pick the **operation**. Then find the answer.

1. 15 dolls are for sale. 7 have caps. How many don't?
a. $15 + 7$ b. $15 - 7$ c. 15×7
2. 5 boxes. Each holds 4 toys. How many toys in all?
a. $5 + 4$ b. $5 - 4$ c. 5×4
3. 3 bears in each bag. 2 bags. How many teddy bears?
a. $3 + 2$ b. $3 - 2$ c. 2×3
4. 6 short pencils. 2 long pencils. How many in all?
a. $6 + 2$ b. $6 - 2$ c. 2×6
5. 9 cases. Each holds 2 bottles.
How many bottles in all?
a. addition b. subtraction c. multiplication
6. 62 marbles in a jar. 59 marbles in a bag.
How many altogether?
a. addition b. subtraction c. multiplication
7. 8 tables to start. 2 are taken. How many are left?
a. addition b. subtraction c. multiplication
8. A batch of brownies is cut into 5 rows and 3 columns.
How many brownies in this batch?
a. addition b. subtraction c. multiplication

Draw a picture first. Then give the equation.

2 pans of cookies
3 gum drops on each cookie
4 cookies on each pan

6 slices from each loaf
3 loaves in all.
4 nuts in each slice

1. How many cookies altogether?

2. How many slices in all?

7 marbles in each bag
3 bags in each box
2 boxes in all

5¢ spent by each child
6 groups of children
4 kids in each group

3. How many marbles in each box?

4. How many kids in all?

REVIEW

Copy and complete the patterns.

N⁸

1. 3, 6, 9, ■, ■

2. 2, 4, 6, ■, ■

3. 4, 8, 12, ■, ■

4. 5, 10, 15, ■, ■

5. 10, 20, 30, ■, ■

6. 10, 12, 14, ■, ■

Write the answers.

A²²

7. $3 + 3 + 3$

8. 3×3

9. $4 + 4$

10. 2×4

11. 2 threes

12. 2×3

13. 4 fives

14. 4×5

15. 5 zeros

Multiply.

A²³

16. 3×4

17. 4×3

18. 5×5

19. 3×5

20. 5×3

21. 4×1

Two

How many in all?



You can think of:

$$9 \text{ twos} = 18$$

$$\text{or } 2 \text{ nines} = 18$$

You can add: $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$

$$\text{or } 9 + 9 = 18$$

You can multiply:

$$9 \times 2 = 18$$

$$\text{or } 2 \times 9 = 18$$

There are 18 in all.

EXERCISES

Write an equation for each question.

1. $0 + 0$

2. 2 zeros

3. 2×0

4. $1 + 1$

5. 2 ones

6. 2×1

7. $2 + 2$

8. 2 twos

9. 2×2

10. $2 + 2 + 2$

11. 3 twos

12. 3×2

13. $3 + 3$

14. 2 threes

15. 2×3

16. $2 + 2 + 2 + 2$

17. 4 twos

18. 4×2

19. $4 + 4$

20. 2 fours

21. 2×4

22. $2 + 2 + 2 + 2 + 2$

23. 5 twos

24. 5×2

25. $5 + 5$

26. 2 fives

27. 2×5

28. $2 + 2 + 2 + 2 + 2 + 2$

29. 6 twos

30. 6×2

31. $6 + 6$

32. 2 sixes

33. 2×6

PRACTICE

Write an equation.

- | | | | |
|------------------|------------------|------------------|-------------------|
| 1. $5 + 5$ | 2. 2×5 | 3. $6 + 6$ | 4. 2×6 |
| 5. $7 + 7$ | 6. 2×7 | 7. $8 + 8$ | 8. 2×8 |
| 9. $9 + 9$ | 10. 2×9 | 11. $10 + 10$ | 12. 2×10 |
| 13. 2×7 | 14. 7×2 | 15. 2×1 | 16. 1×2 |
| 17. 2×3 | 18. 3×2 | 19. 2×8 | 20. 8×2 |
| 21. 2×0 | 22. 0×2 | 23. 2×9 | 24. 9×2 |
| 25. 2×5 | 26. 5×2 | 27. 2×4 | 28. 4×2 |

Solve.

29. 2



How many toes?

30. 5



How many hands?

31. 2



How many scoops?

32. 8



How many wings?

33. 2



How many petals?

34. 9

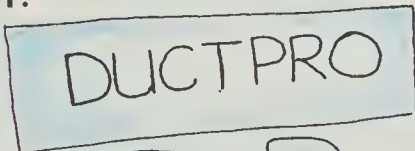


How many ears?

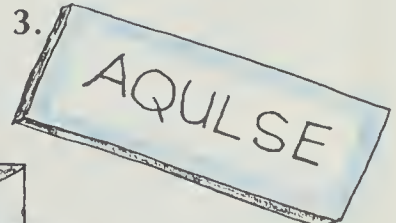
Scramble Games

Unscramble the letters to make multiplication words.

1.



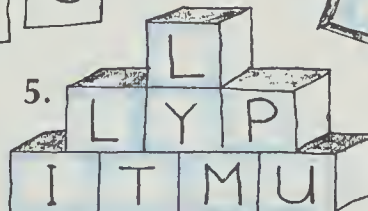
3.



4.

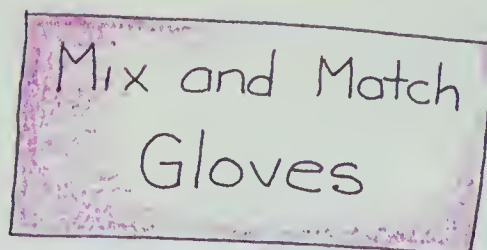


5.



Five

How many fingers are there altogether in these gloves?



To find out, count by fives.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

$$9 \text{ fives} = 45$$

$$9 \times 5 = 45$$

There are 45 fingers in 9 gloves.

EXERCISES

Write each product.

- | | | | |
|-------------|------------------|-------------|------------------|
| 1. 1 five | 2. 1×5 | 3. 2 fives | 4. 2×5 |
| 5. 3 fives | 6. 3×5 | 7. 4 fives | 8. 4×5 |
| 9. 5 fives | 10. 5×5 | 11. 6 fives | 12. 6×5 |
| 13. 7 fives | 14. 7×5 | 15. 8 fives | 16. 8×5 |
| 17. 9 fives | 18. 9×5 | 19. 0 fives | 20. 0×5 |

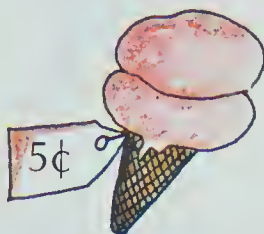
PRACTICE

Write the factors and product in an equation.

- | | | | |
|------------------|------------------|------------------|------------------|
| 1. 0×5 | 2. 5×0 | 3. 1×5 | 4. 5×1 |
| 5. 2×5 | 6. 5×2 | 7. 3×5 | 8. 5×3 |
| 9. 4×5 | 10. 5×4 | 11. 5×5 | 12. 6×5 |
| 13. 5×6 | 14. 7×5 | 15. 8×5 | 16. 5×8 |
| 17. 9×5 | 18. 5×9 | 19. 5×3 | 20. 5×7 |
| 21. 5×9 | 22. 4×5 | 23. 8×5 | 24. 5×6 |
| 25. 5×1 | 26. 5×2 | 27. 5×5 | 28. 5×1 |

Solve.

29.



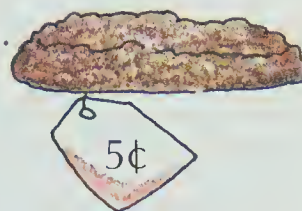
How much for
7 cones?

30.



How much for
5 lollipops?

31.

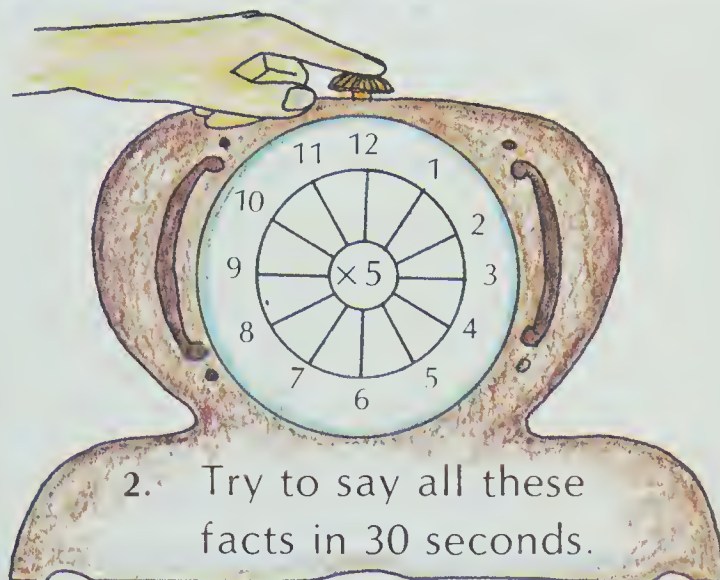


How much for
8 bars?

Beat the Clock

- $1 \times 5 = \blacksquare$
 $2 \times 5 = \blacksquare$
 $3 \times 5 = \blacksquare$
 \vdots
 $11 \times 5 = \blacksquare$

1. Finish the pattern.



2. Try to say all these
facts in 30 seconds.

Three



How many legs in all?

To find out, count by threes.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

$$9 \text{ threes} = 27$$

$$9 \times 3 = 27$$

There are 27 legs.

EXERCISES

Write each product.

- | | | | |
|--------------|------------------|--------------|------------------|
| 1. 1 three | 2. 1×3 | 3. 2 threes | 4. 2×3 |
| 5. 3 threes | 6. 3×3 | 7. 4 threes | 8. 4×3 |
| 9. 5 threes | 10. 5×3 | 11. 6 threes | 12. 6×3 |
| 13. 7 threes | 14. 7×3 | 15. 8 threes | 16. 8×3 |
| 17. 9 threes | 18. 9×3 | 19. 0 threes | 20. 0×3 |

PRACTICE

Write the product in an equation.

- | | | | |
|------------------|------------------|------------------|------------------|
| 1. 0×3 | 2. 3×0 | 3. 1×3 | 4. 3×1 |
| 5. 2×3 | 6. 3×2 | 7. 3×3 | 8. 4×3 |
| 9. 3×4 | 10. 5×3 | 11. 3×5 | 12. 6×3 |
| 13. 3×6 | 14. 7×3 | 15. 3×7 | 16. 8×3 |
| 17. 3×8 | 18. 9×3 | 19. 3×9 | 20. 7×2 |
| 21. 7×3 | 22. 7×5 | 23. 4×3 | 24. 3×9 |
| 25. 6×2 | 26. 6×3 | 27. 6×5 | 28. 3×1 |

Solve.



How many legs?




How many legs?



How many legs?

Who am I?

1.  $\times 2 = 6$

 $\times 4 = 12$

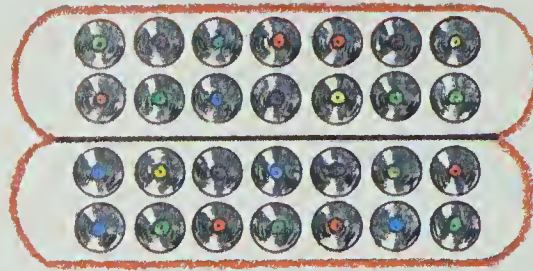
2. Multiply me by any number.
The product is always zero.
Who am I?

3. Multiply any number by me.
The product is always the
other number.
Who am I?

$\blacksquare \times 5 = 0$	$\blacksquare \times 2 = 0$
$\blacksquare \times 3 = 0$	$\blacksquare \times 1 = 0$
	$\blacksquare \times 0 = 0$

$\blacksquare \times 5 = 5$	$\blacksquare \times 2 = 2$
$\blacksquare \times 3 = 3$	$\blacksquare \times 1 = 1$
	$\blacksquare \times 0 = 0$

Four



2 sevens
2 sevens
4 sevens

$$2 \text{ sevens} + 2 \text{ sevens} = 4 \text{ sevens}$$

$$14 + 14 = 28$$

So $4 \times 7 = 28$

There are 28 records in all.

EXERCISES

Copy and complete the equations.

- $2 \text{ fours} = 8$
 $2 \text{ fours} = 8$
 $4 \text{ fours} = \blacksquare$
 $4 \times 4 = \blacksquare$
- $2 \text{ fives} = \blacksquare$
 $2 \text{ fives} = \blacksquare$
 $4 \text{ fives} = \blacksquare$
 $4 \times 5 = \blacksquare$
- $2 \text{ sixes} = \blacksquare$
 $2 \text{ sixes} = \blacksquare$
 $4 \text{ sixes} = \blacksquare$
 $4 \times 6 = \blacksquare$
- $2 \text{ sevens} = \blacksquare$
 $2 \text{ sevens} = \blacksquare$
 $4 \text{ sevens} = \blacksquare$
 $4 \times 7 = \blacksquare$
- $2 \text{ eights} = \blacksquare$
 $2 \text{ eights} = \blacksquare$
 $4 \text{ eights} = \blacksquare$
 $4 \times 8 = \blacksquare$
- $2 \text{ nines} = \blacksquare$
 $2 \text{ nines} = \blacksquare$
 $4 \text{ nines} = \blacksquare$
 $4 \times 9 = \blacksquare$

PRACTICE

Multiply.

- | | | | |
|------------------|------------------|------------------|------------------|
| 1. 4×0 | 2. 4×1 | 3. 4×2 | 4. 4×3 |
| 5. 4×4 | 6. 4×5 | 7. 4×6 | 8. 4×7 |
| 9. 4×8 | 10. 4×9 | 11. 0×4 | 12. 1×4 |
| 13. 2×4 | 14. 3×4 | 15. 4×4 | 16. 5×4 |
| 17. 6×4 | 18. 7×4 | 19. 8×4 | 20. 9×4 |
| 21. 0×0 | 22. 1×1 | 23. 2×2 | 24. 3×3 |
| 25. 4×4 | 26. 5×5 | 27. 7×4 | 28. 7×5 |

Solve.

29. 5  in a box.

How many  in 4 boxes?

30. 4  in a stack.

How many  in 6 stacks?

REVIEW

Multiply.

- | | | | | |
|-----|------------------|------------------|------------------|------------------|
| A24 | 1. 2×5 | 2. 2×6 | 3. 2×7 | 4. 2×8 |
| | 5. 2×9 | 6. 2×4 | 7. 2×3 | 8. 2×2 |
| A25 | 9. 9×5 | 10. 8×5 | 11. 7×5 | 12. 6×5 |
| | 13. 5×5 | 14. 4×5 | 15. 3×5 | 16. 2×5 |
| A26 | 17. 6×3 | 18. 7×3 | 19. 8×3 | 20. 9×3 |
| | 21. 0×3 | 22. 1×3 | 23. 2×3 | 24. 3×3 |
| A27 | 25. 4×6 | 26. 4×7 | 27. 4×8 | 28. 4×9 |
| | 29. 4×5 | 30. 4×4 | 31. 4×3 | 32. 4×1 |

TEST

UNIT 7

Add.

1. $3 + 3$

2. $6 + 3$

3. $9 + 3$

4. $12 + 3$

Complete the patterns.

5. 20, 25, ■, ■, 40

6. ■, 4, 6, 8, ■

7. 3, 6, 9, 12, ■, ■

8. 4, 8, ■, 16, ■

Copy and complete the equations.

9. $5 + 5 = \blacksquare$

10. $2 \times 5 = \blacksquare$

11. $2 + 2 + 2 + 2 = \blacksquare$

12. $4 \times 2 = \blacksquare$

13. $4 + 4 + 4 = \blacksquare$

14. $\blacksquare \times 4 = 12$

15. $6 \times 2 = 2 \times \blacksquare$

16. $4 \times 5 = \blacksquare \times 4$

17. $6 \times 3 = 3 \times \blacksquare$

Multiply.

18. 2×7

19. 7×2

20. 5×1

21. 1×5

22. 2×8

23. 2×5

24. 2×6

25. 2×4

26. 9×2

27. 1×2

28. 7×2

29. 2×2

30. 3×5

31. 6×5

32. 9×5

33. 1×5

34. 5×8

35. 5×4

36. 5×7

37. 5×5

38. 2×3

39. 6×3

40. 0×3

41. 9×3

42. 3×7

43. 3×4

44. 3×3

45. 3×8

46. 2×4

47. 4×4

48. 6×4

49. 4×8

50. 4×7

51. 4×3

52. 4×9

53. 4×0

Pick the correct **length** and **mass**.

toy car



1. 10 cm or 10 m

2. 50 g or 50 kg

small boy



3. 1 cm or 1 m

4. 20 g or 20 kg

Make each equation true.

5. ■ cm = 1 dm

6. ■ cm = 1 m

7. ■ m = 1 km

8. ■ dm = 30 cm

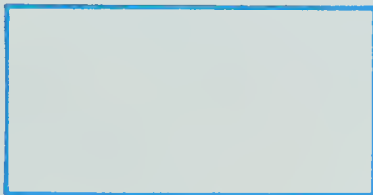
9. ■ m = 600 cm

10. ■ km = 3000 m

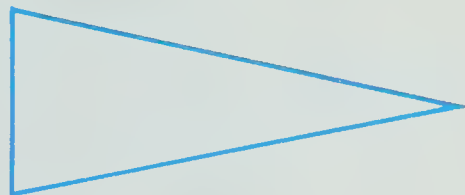
Use a centimetre ruler to measure the lengths.

11. _____

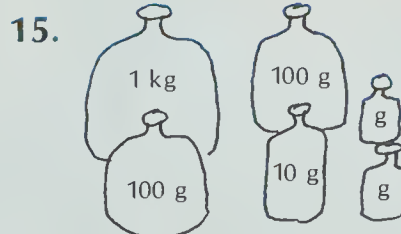
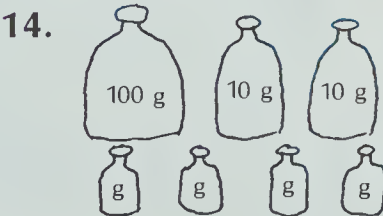
12. the perimeter



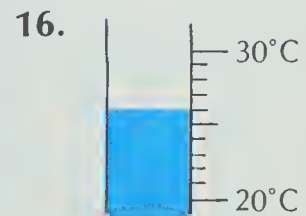
13. the perimeter



How heavy?



What temperature?



Show the time in another way.



19. June 14, 1991

20. 89-3-29

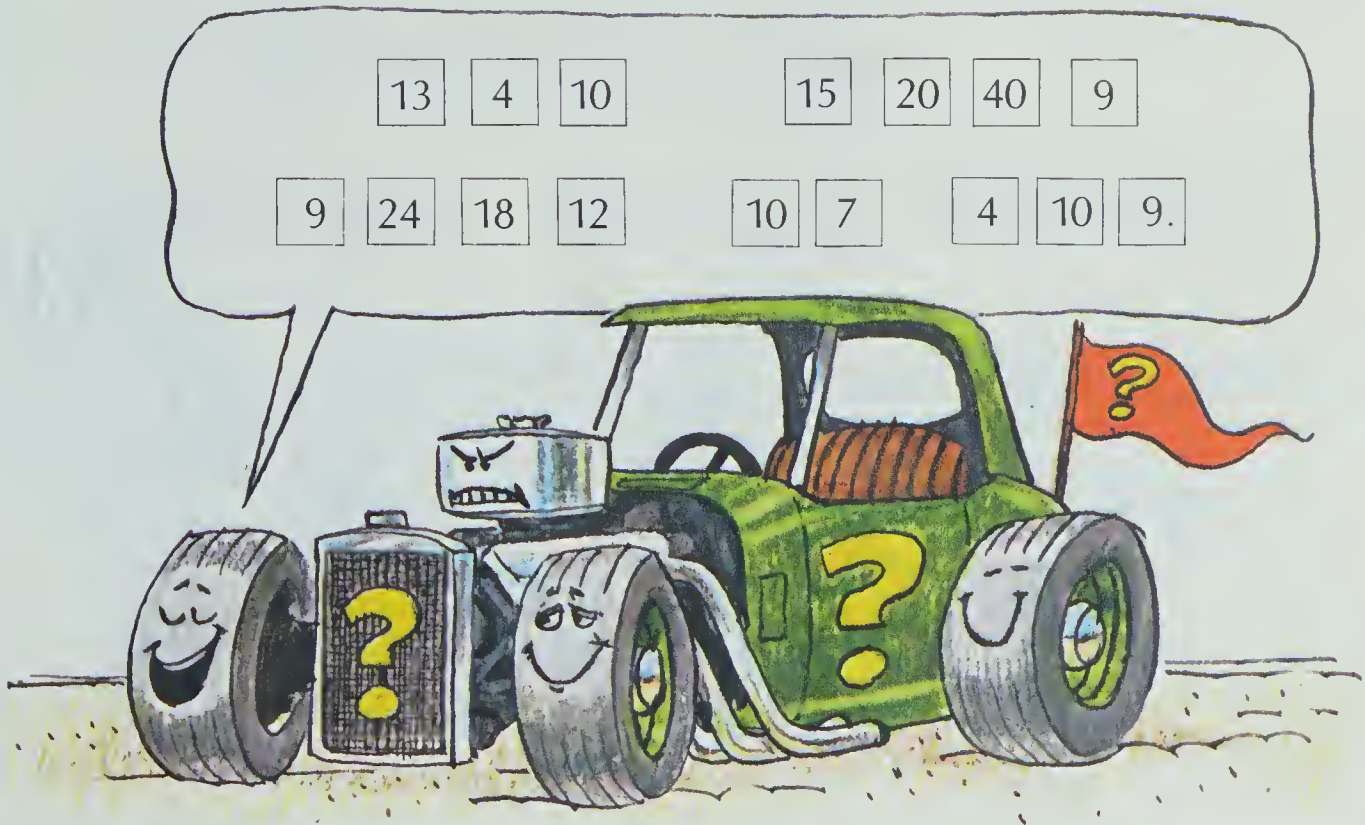
UNIT 8

DIVISION FACTS I



Talking Wheels

What do the wheels say to the engine?



Find the answers.

Then solve the riddle.

E $6 + 6$

T 3×3

O $13 - 9$

A 4×5

N 5×8

E 2×6

I 4×6

T 1×9

U $15 - 5$

E 4×3

A $30 - 10$

T $6 + 3$

O $4 + 0$

T $12 - 3$

I $12 + 12$

R $9 + 9$

Y $6 + 7$

O 2×2

U 2×5

E $9 + 3$

S $16 - 9$

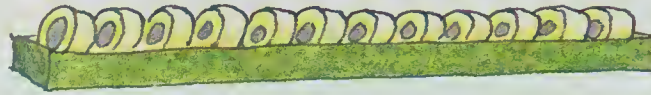
C 5×3

R 3×6

U $5 + 5$

Meaning of Division

How many groups of 4 in 12?



There are 3 groups of 4 in 12.



You can show this by **division**:

$$12 \div 4 = 3$$

You say: Twelve **divided by** four equals three.

EXERCISES

Answer the question. Complete the equation.

1.



How many wheels in all?
How many groups of 2 in 6?

$$6 \div 2 = \blacksquare$$

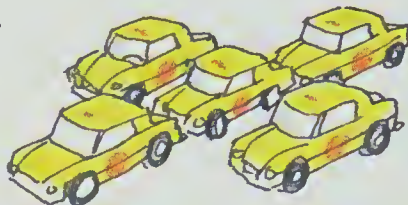
2.



How many wheels in all?
How many groups of 3 in 9?

$$9 \div 3 = \blacksquare$$

3.



How many wheels in all?
How many 4s in 20?

$$20 \div 4 = \blacksquare$$

4.



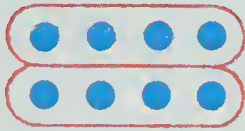
How many wheels in all?
How many 3s in 12?

$$12 \div 3 = \blacksquare$$

PRACTICE

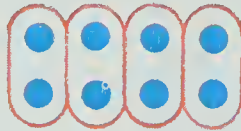
Find the answer. Complete the equation.

1.



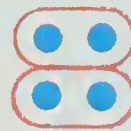
How many dots?
How many 4s in 8?
 $8 \div 4 = \blacksquare$

2.



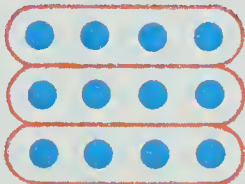
How many dots?
How many 2s in 8?
 $8 \div 2 = \blacksquare$

3.



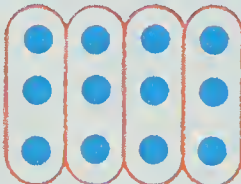
How many dots?
How many 2s in 4?
 $4 \div 2 = \blacksquare$

4.



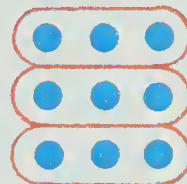
How many dots?
How many 4s in 12?
 $12 \div 4 = \blacksquare$

5.



How many dots?
How many 3s in 12?
 $12 \div 3 = \blacksquare$

6.



How many dots?
How many 3s in 9?
 $9 \div 3 = \blacksquare$

Divide. Draw a picture to help you.

7. $10 \div 5 = \blacksquare$ 8. $10 \div 2 = \blacksquare$ 9. $16 \div 4 = \blacksquare$

10. $14 \div 7 = \blacksquare$ 11. $14 \div 2 = \blacksquare$ 12. $6 \div 3 = \blacksquare$

13. 16 wheels
2 on each bicycle
How many bicycles?

14. 15 balls
3 in each wagon
How many wagons?

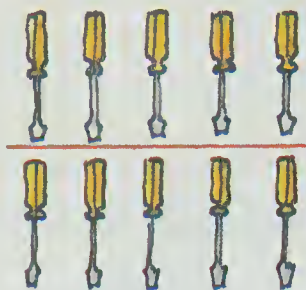
Heavy Thinking

Karl is lighter than Ken, but heavier than Kate.
Who is the lightest?
Who is the heaviest?



Multiplication and Division

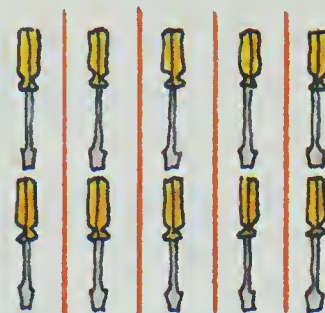
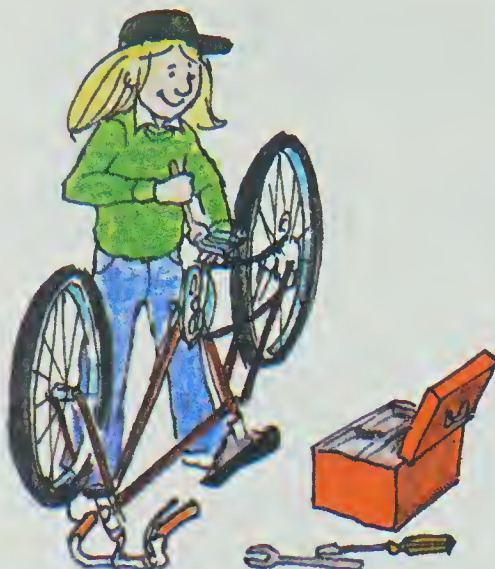
You can think of multiplication to help you divide.



2 groups of 5

$$2 \times 5 = 10$$

$$10 \div 5 = 2$$



5 groups of 2

$$5 \times 2 = 10$$

$$10 \div 2 = 5$$

The answer when you divide is called the **quotient**.

EXERCISES

Copy and complete the division equations.

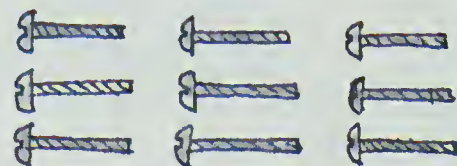
1. $3 \times 4 = 12$

$12 \div 4 = \blacksquare$



2. $4 \times 3 = 12$

$12 \div 3 = \blacksquare$



3. $3 \times 3 = 9$

$9 \div 3 = \blacksquare$

4. $\blacksquare \times 4 = 8$

$8 \div 4 = \blacksquare$



5. $\blacksquare \times 2 = 8$

$8 \div 2 = \blacksquare$



6. $\blacksquare \times 2 = 4$

$4 \div 2 = \blacksquare$

PRACTICE

Copy and complete.

1. $3 \times 5 = \blacksquare$
 $15 \div 5 = \blacksquare$

2. $5 \times 3 = \blacksquare$
 $15 \div 3 = \blacksquare$

3. $4 \times 4 = \blacksquare$
 $16 \div 4 = \blacksquare$

4. $2 \times 6 = \blacksquare$
 $12 \div 6 = \blacksquare$

5. $6 \times 2 = \blacksquare$
 $12 \div 2 = \blacksquare$

6. $7 \times 3 = \blacksquare$
 $21 \div 3 = \blacksquare$

7. $\blacksquare \times 3 = 6$
 $6 \div 3 = \blacksquare$

8. $\blacksquare \times 2 = 6$
 $6 \div 2 = \blacksquare$

9. $\blacksquare \times 4 = 20$
 $20 \div 4 = \blacksquare$

10. $\blacksquare \times 5 = 20$
 $20 \div 5 = \blacksquare$

11. $\blacksquare \times 2 = 10$
 $10 \div 2 = \blacksquare$

12. $\blacksquare \times 3 = 9$
 $9 \div 3 = \blacksquare$

Solve.

13. 5 rows
3 cars in each row
How many cars in all?

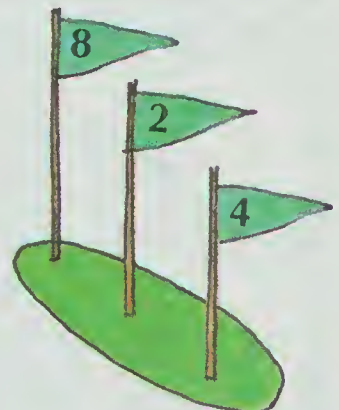
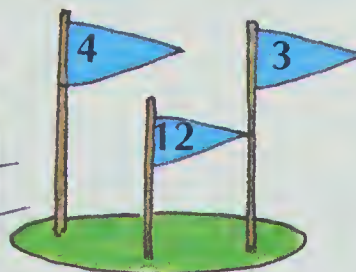
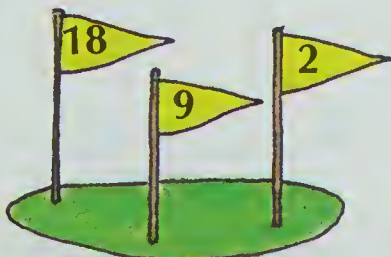
14. 15 passengers
5 passengers in each car
How many cars?

15. 16 pedals
2 for each bike
How many bicycles?

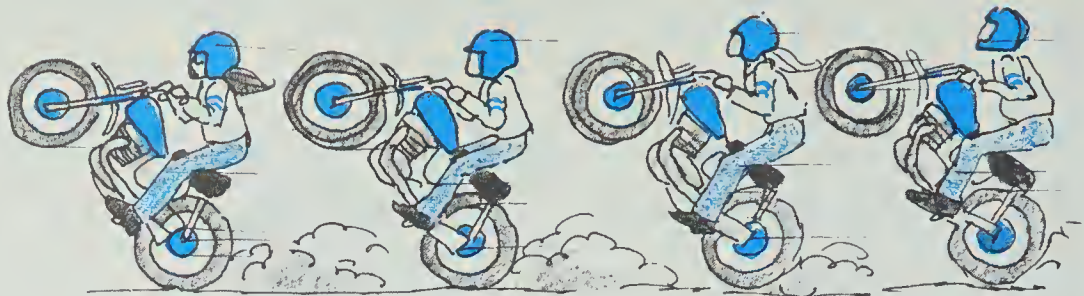
16. 18 wheels
3 for each scooter
How many scooters?

Bicycle Challenge

Write two multiplication and two division sentences for each set of flags.



Two



8 wheels in all

2 wheels on each motorcycle

How many motorcycles are there?

Think! How many groups of 2 in 8?

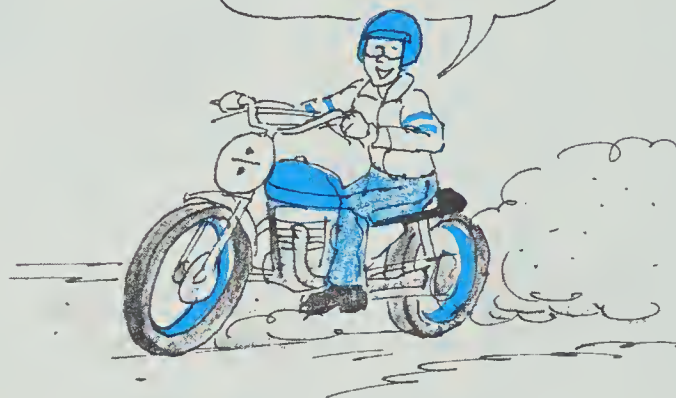
factor factor product

$$\blacksquare \times 2 = 8$$

$$8 \div 2 = 4$$

quotient

Dividing is like
finding a **missing**
factor.



There are 4 motorcycles in all.

EXERCISES

Copy and complete the equations.

1. How many
groups of 2 in 2?

$$\blacksquare \times 2 = 2$$

$$2 \div 2 = \blacksquare$$

2. How many
groups of 2 in 4?

$$\blacksquare \times 2 = 4$$

$$4 \div 2 = \blacksquare$$

3. How many
groups of 2 in 6?

$$\blacksquare \times 2 = 6$$

$$6 \div 2 = \blacksquare$$

4. $\blacksquare \times 2 = 8$

$$8 \div 2 = \blacksquare$$

5. $\blacksquare \times 2 = 10$

$$10 \div 2 = \blacksquare$$

6. $\blacksquare \times 2 = 12$

$$12 \div 2 = \blacksquare$$

7. $\blacksquare \times 2 = 14$

$$14 \div 2 = \blacksquare$$

8. $\blacksquare \times 2 = 16$

$$16 \div 2 = \blacksquare$$

9. $\blacksquare \times 2 = 18$

$$18 \div 2 = \blacksquare$$

PRACTICE

Divide.

1. $18 \div 2$
2. $16 \div 2$
3. $14 \div 2$
4. $12 \div 2$
5. $10 \div 2$
6. $8 \div 2$
7. $6 \div 2$
8. $4 \div 2$
9. $2 \div 2$
10. $18 \div 2$
11. $16 \div 2$
12. $10 \div 2$

Solve.

13. 10 
2  on each bicycle

How many bicycles?

14. 16 
2  in each wagon

How many wagons?

15. 14 
2  on each bicycle

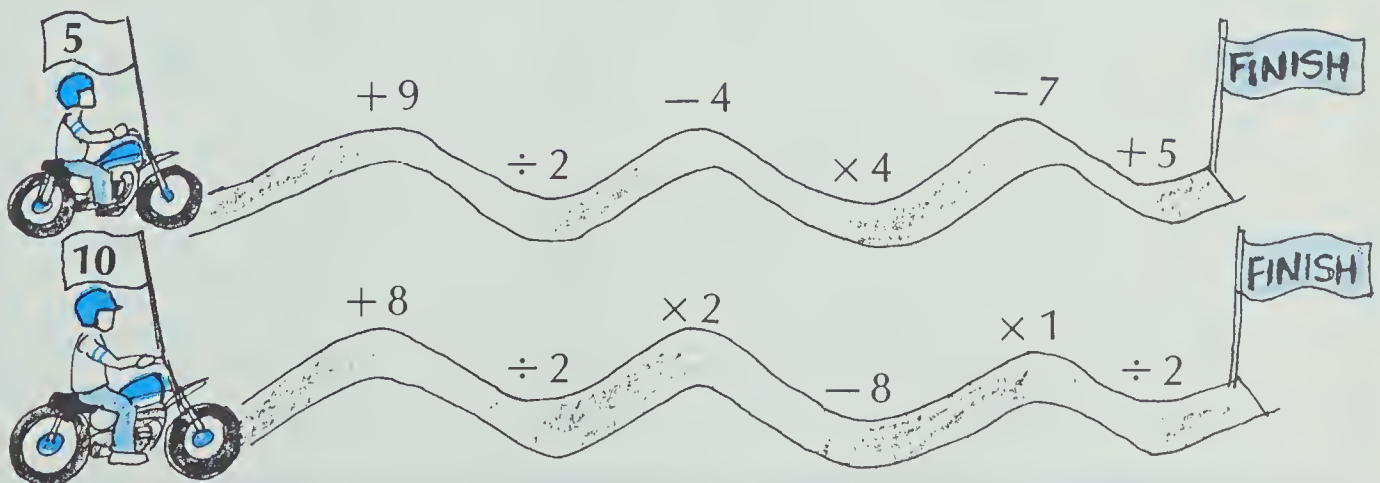
How many bicycles?

16. 2 
2  on each car

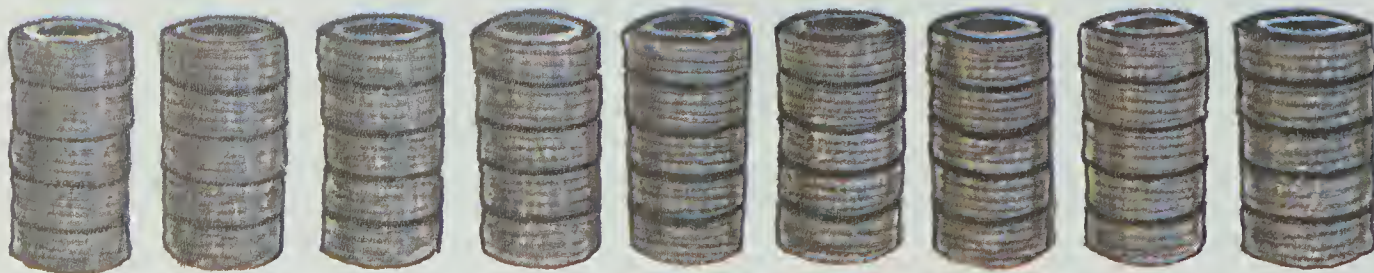
How many cars?

Motorcycle Challenge

Find the number at the end of each course.



Five



45 tires

5 tires in each stack

How many stacks of tires are there?

Think! How many groups of 5 in 45?

$$\blacksquare \times 5 = 45$$

$$45 \div 5 = 9$$

There are 9 stacks of 5 in 45.

EXERCISES

Use the picture above to help you complete each equation.

1. How many groups of 5 in 5?

$$\blacksquare \times 5 = 5$$

$$5 \div 5 = \blacksquare$$

2. How many groups of 5 in 10?

$$\blacksquare \times 5 = 10$$

$$10 \div 5 = \blacksquare$$

3. How many groups of 5 in 15?

$$\blacksquare \times 5 = 15$$

$$15 \div 5 = \blacksquare$$

4. $\blacksquare \times 5 = 20$

$$20 \div 5 = \blacksquare$$

5. $\blacksquare \times 5 = 25$

$$25 \div 5 = \blacksquare$$

6. $\blacksquare \times 5 = 30$

$$30 \div 5 = \blacksquare$$

7. $\blacksquare \times 5 = 35$

$$35 \div 5 = \blacksquare$$

8. $\blacksquare \times 5 = 40$

$$40 \div 5 = \blacksquare$$

9. $\blacksquare \times 5 = 45$







$$45 \div 5 = \blacksquare$$

PRACTICE

Divide.

- | | | | |
|----------------|-----------------|-----------------|-----------------|
| 1. $15 \div 5$ | 2. $10 \div 5$ | 3. $45 \div 5$ | 4. $30 \div 5$ |
| 5. $40 \div 5$ | 6. $5 \div 5$ | 7. $35 \div 5$ | 8. $25 \div 5$ |
| 9. $20 \div 5$ | 10. $10 \div 2$ | 11. $10 \div 5$ | 12. $40 \div 5$ |

Solve.

- | | | |
|---|---|--|
| 13. 30  in all | 14. 20  in all | 15. 25  in all |
| 5  in each row | 5  in each car | 5  for each car |
| How many rows? | How many cars? | How many cars? |

REVIEW

Copy and complete the equations.

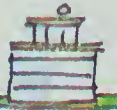
- | | | | | |
|-----|--|--|---|--|
| A28 | 1.  | 2.  | 3.  | 4.  |
| | $12 \div 4 = \blacksquare$ | $12 \div 3 = \blacksquare$ | $10 \div 5 = \blacksquare$ | $10 \div 2 = \blacksquare$ |

- | | | | | |
|-----|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| A29 | 5. $3 \times 2 = \blacksquare$ | 6. $2 \times 3 = \blacksquare$ | 7. $6 \times 3 = \blacksquare$ | 8. $3 \times 6 = \blacksquare$ |
| | $6 \div 2 = \blacksquare$ | $6 \div 3 = \blacksquare$ | $18 \div 3 = \blacksquare$ | $18 \div 6 = \blacksquare$ |

Divide.

- | | | | | |
|-----|-----------------|-----------------|-----------------|-----------------|
| A30 | 9. $4 \div 2$ | 10. $14 \div 2$ | 11. $18 \div 2$ | 12. $2 \div 2$ |
| | 13. $8 \div 2$ | 14. $16 \div 2$ | 15. $12 \div 2$ | 16. $10 \div 2$ |
| A31 | 17. $40 \div 5$ | 18. $20 \div 5$ | 19. $45 \div 5$ | 20. $25 \div 5$ |
| | 21. $15 \div 5$ | 22. $30 \div 5$ | 23. $10 \div 5$ | 24. $35 \div 5$ |

Three



18 wheels

3 wheels on each plane

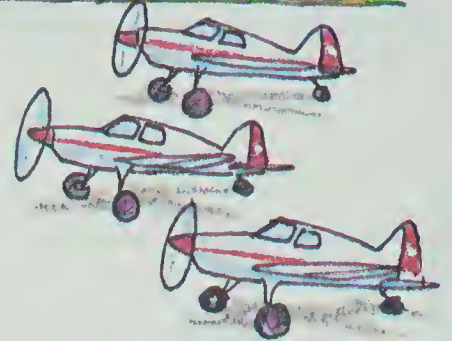
How many planes are there in all?

Think! How many groups of 3 in 18?

$$\blacksquare \times 3 = 18$$

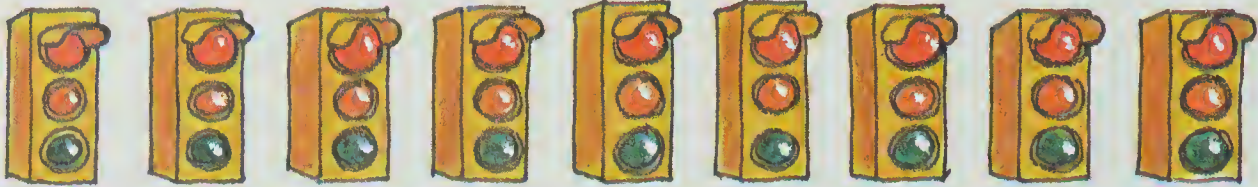
$$18 \div 3 = 6$$

There are 6 planes in all.



Remember that dividing is like finding a **missing factor**.

EXERCISES



Complete the equations.

1. How many groups of 3 in 3?

$$\blacksquare \times 3 = 3$$

$$3 \div 3 = \blacksquare$$

2. How many groups of 3 in 6?

$$\blacksquare \times 3 = 6$$

$$6 \div 3 = \blacksquare$$

3. How many groups of 3 in 9?

$$\blacksquare \times 3 = 9$$

$$9 \div 3 = \blacksquare$$

4. $\blacksquare \times 3 = 12$

$$12 \div 3 = \blacksquare$$

5. $\blacksquare \times 3 = 15$

$$15 \div 3 = \blacksquare$$

6. $\blacksquare \times 3 = 18$

$$18 \div 3 = \blacksquare$$

7. $\blacksquare \times 3 = 21$

$$21 \div 3 = \blacksquare$$

8. $\blacksquare \times 3 = 24$

$$24 \div 3 = \blacksquare$$

9. $\blacksquare \times 3 = 27$



$$27 \div 3 = \blacksquare$$



PRACTICE



Divide.



1. $15 \div 3$
2. $12 \div 3$
3. $3 \div 3$
4. $9 \div 3$
5. $21 \div 3$
6. $18 \div 3$
7. $27 \div 3$
8. $24 \div 3$
9. $6 \div 3$
10. $6 \div 2$
11. $15 \div 3$
12. $15 \div 5$



Solve.



17. 24  in all
3  on each tricycle
How many tricycles?

18. 18  in all
3  in each plane
How many planes?

19. 15  in all
3  for each race
How many races?

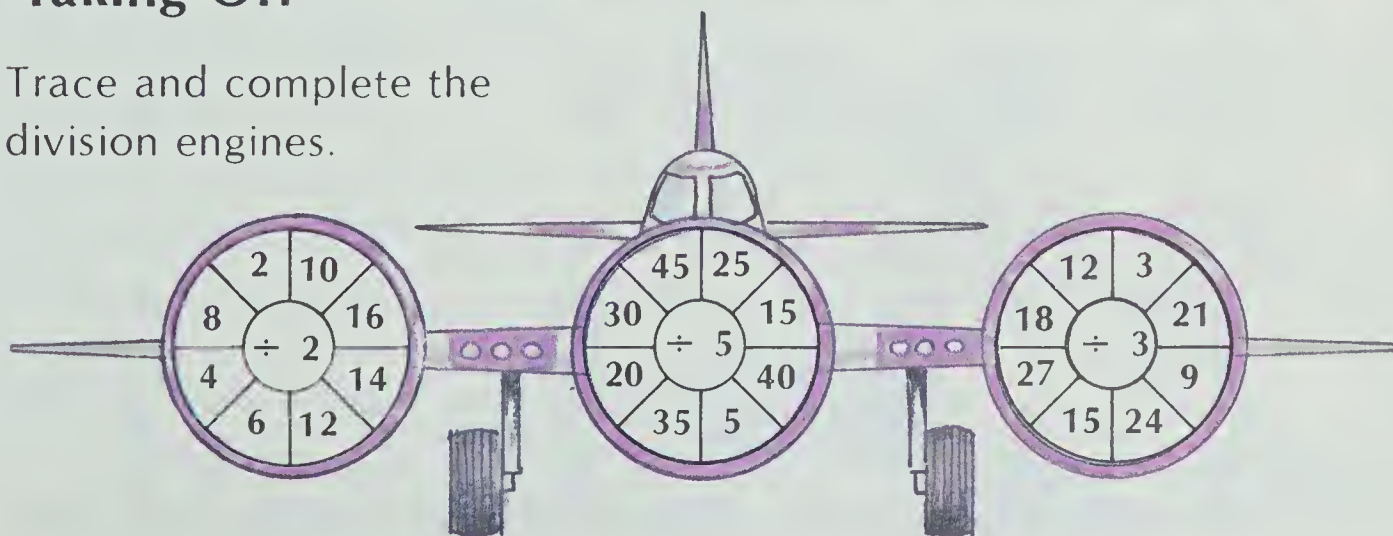
20. 6  in all
2  for each tire
How many tires?

21. 27  in all
3  at each stop
How many stops?

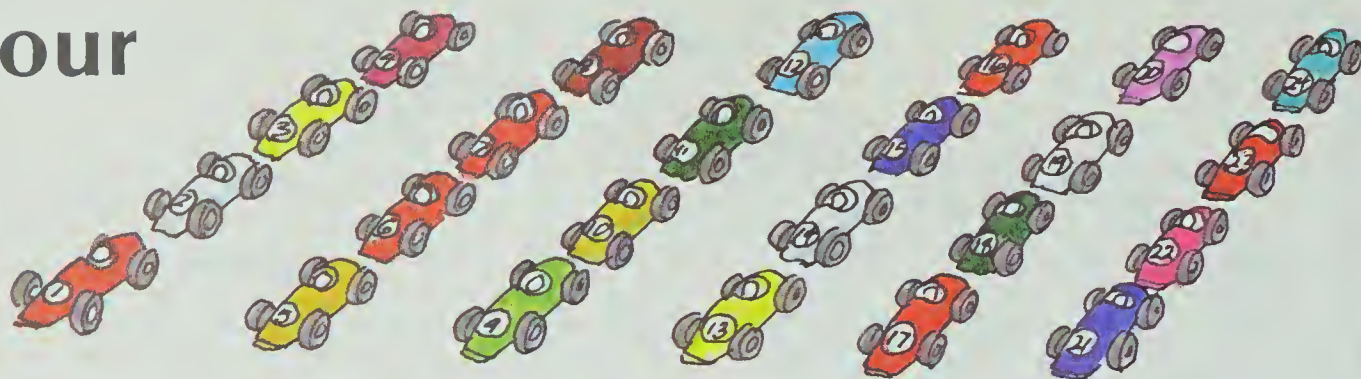
22. 15  in all
5  in each car
How many cars?

Taking Off

Trace and complete the division engines.



Four



24 race cars

4 in each row

How many rows?

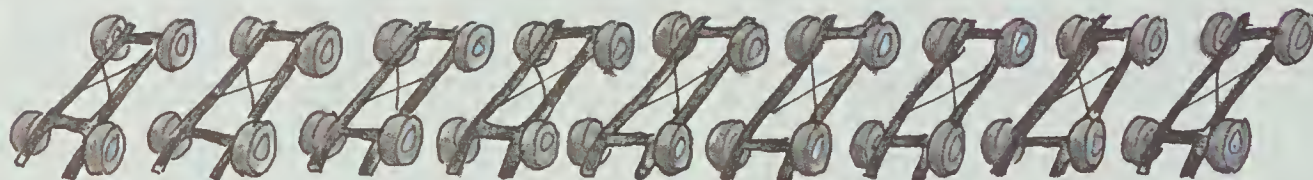
Think! How many groups of 4 in 24?

$$\blacksquare \times 4 = 24$$

$$24 \div 4 = 6$$

There are 6 rows of race cars.

EXERCISES



Complete the equations.

1. How many groups of 4 in 4?

$$\blacksquare \times 4 = 4$$

$$4 \div 4 = \blacksquare$$

2. How many groups of 4 in 8?

$$\blacksquare \times 4 = 8$$

$$8 \div 4 = \blacksquare$$

3. How many groups of 4 in 12?

$$\blacksquare \times 4 = 12$$

$$12 \div 4 = \blacksquare$$

4. $\blacksquare \times 4 = 16$

$$16 \div 4 = \blacksquare$$

5. $\blacksquare \times 4 = 20$

$$20 \div 4 = \blacksquare$$

6. $\blacksquare \times 4 = 24$

$$24 \div 4 = \blacksquare$$

7. $\blacksquare \times 4 = 28$

$$28 \div 4 = \blacksquare$$

8. $\blacksquare \times 4 = 32$

$$32 \div 4 = \blacksquare$$

9. $\blacksquare \times 4 = 36$



$$36 \div 4 = \blacksquare$$

PRACTICE



Divide.

1. $24 \div 4$
2. $32 \div 4$
3. $4 \div 4$
4. $16 \div 4$
5. $28 \div 4$
6. $36 \div 4$
7. $8 \div 4$
8. $12 \div 4$
9. $20 \div 4$
10. $20 \div 5$
11. $12 \div 4$
12. $12 \div 3$
13. $8 \div 4$
14. $8 \div 2$
15. $32 \div 4$
16. $28 \div 4$



Solve.

17. 36  in all
4  on each car



How many cars?

18. 28  in all
4  in each car

How many cars?

19. 24  in all
4  in each box

How many boxes?

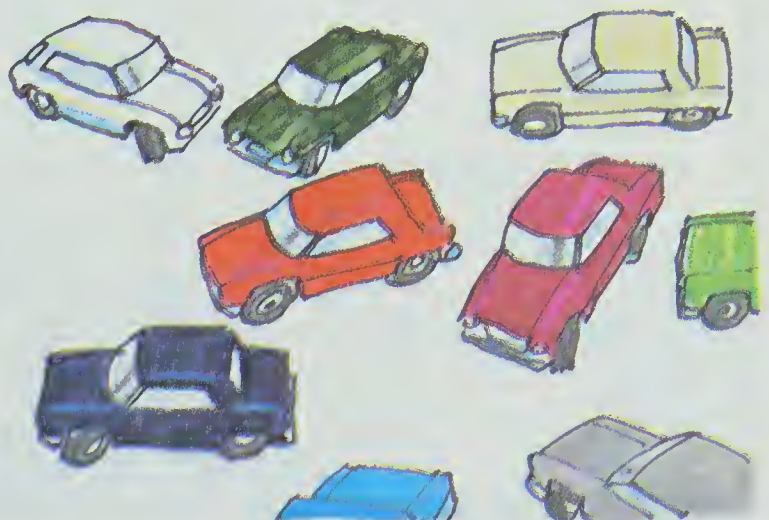
20. 20  in all
4  in each row

How many rows?

Parking Lot Challenge

Help Jean arrange 24 cars in equal size rows.

Use dot pictures to show each arrangement.



Zero and One

4 wheels

1 wheel for each unicycle

How many unicycles can be made?

Remember that multiplication can help.

$$4 \times 1 = 4$$

$$4 \div 1 = 4$$

4 unicycles can be made.

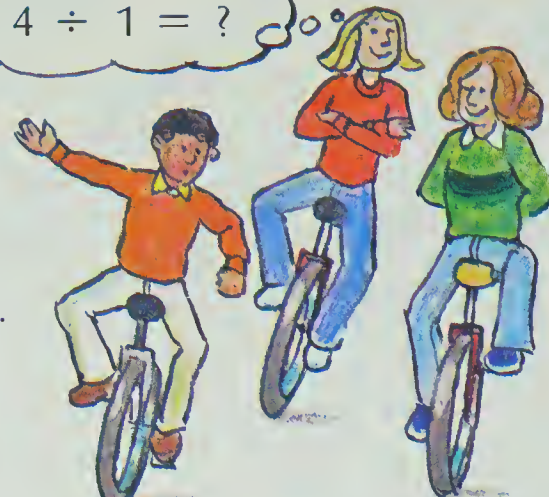
There are no wheels left.

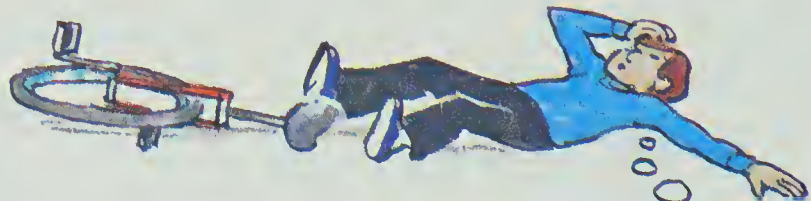
How many tricycles can be made?

$$0 \times 3 = 0$$

$$0 \div 3 = 0$$

No tricycles can be made.


$$4 \div 1 = ?$$


$$0 \div 3 = ?$$

EXERCISES

Copy and complete the equations.

1. $\blacksquare \times 1 = 6$

$6 \div 1 = \blacksquare$

2. $\blacksquare \times 9 = 0$

$0 \div 9 = \blacksquare$

3. $\blacksquare \times 3 = 3$

$3 \div 3 = \blacksquare$

4. $\blacksquare \times 1 = 0$

$0 \div 1 = \blacksquare$

5. $\blacksquare \times 1 = 1$

$1 \div 1 = \blacksquare$

6. $\blacksquare \times 1 = 2$

$2 \div 1 = \blacksquare$

7. $0 \div 8 = \blacksquare$

8. $0 \div 10 = \blacksquare$

9. $0 \div 23 = \blacksquare$

10. $8 \div 1 = \blacksquare$

11. $10 \div 1 = \blacksquare$

12. $23 \div 1 = \blacksquare$

PRACTICE

Divide.

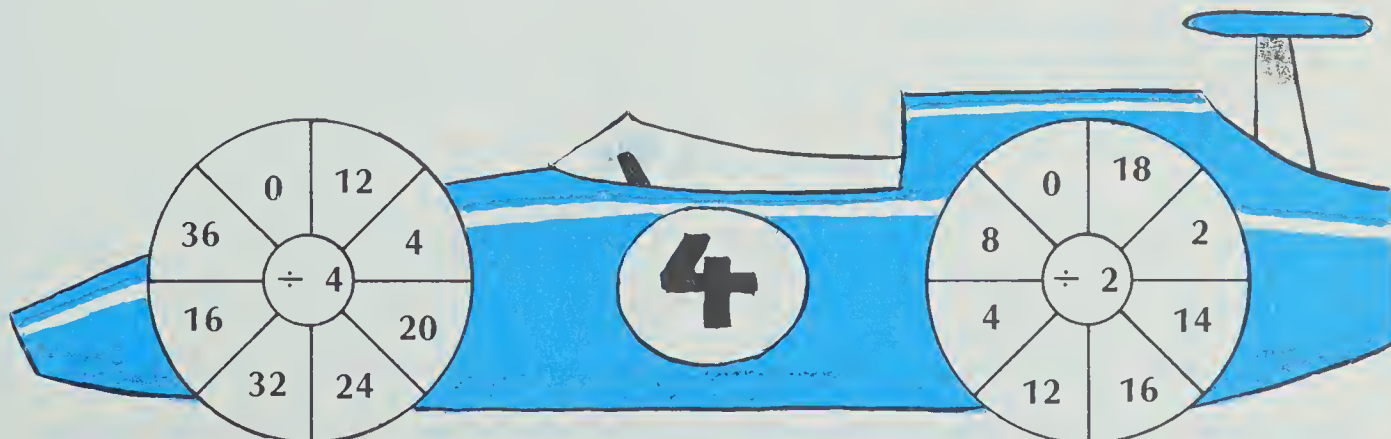
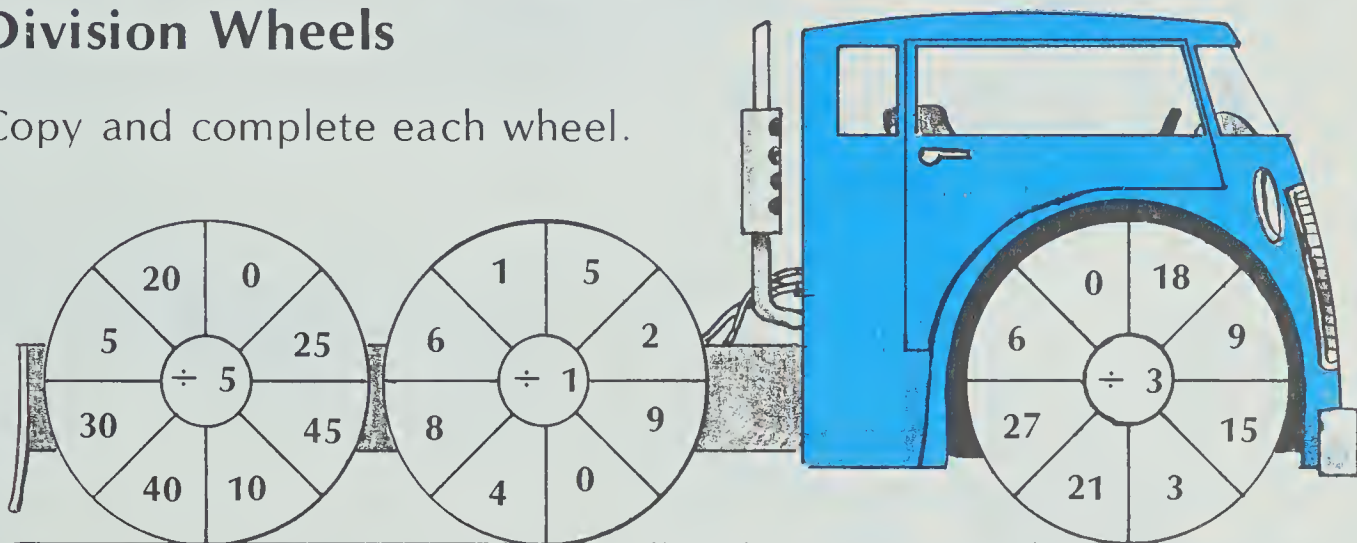
- | | | | |
|---------------|----------------|----------------|----------------|
| 1. $4 \div 1$ | 2. $9 \div 1$ | 3. $2 \div 1$ | 4. $5 \div 1$ |
| 5. $0 \div 2$ | 6. $0 \div 8$ | 7. $0 \div 5$ | 8. $0 \div 9$ |
| 9. $6 \div 6$ | 10. $8 \div 1$ | 11. $1 \div 1$ | 12. $0 \div 1$ |

Solve.

- | | |
|--|--|
| 13. 5 birds
1 in each cage
How many cages? | 14. Two children are to share
the cookies, but none are left.
How many for each child? |
|--|--|

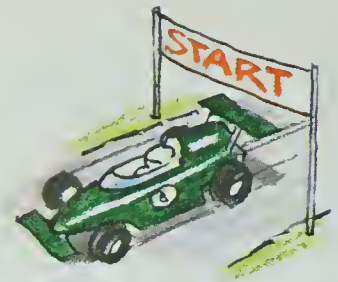
Division Wheels


Copy and complete each wheel.




Choosing the **OP**erations

Pick the operation first. Then write the equation.






1. 5 
4 wheels on each car
How many wheels in all?
+ - \times \div

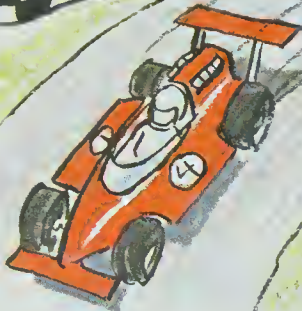
2. 12 wheels in all
4 on each 
How many cars?
+ - \times \div

3. 13 racers
7 drop out.
How many are left?
+ - \times \div

4. 14 drivers
2 in each car
How many cars?
+ - \times \div


5. 7 new 
8 old 
6 very old 
How many cars in all?
+ - \times \div

6. 15 motorcycles start.
3 in each row
How many rows?
+ - \times \div



7. 20 people watch.
5 in each group
How many groups?
+ - \times \div


8. 12 drivers
3 on each team
How many teams?
+ - \times \div


9. 6  finish.
2 wheels on each
How many wheels in all?
+ - \times \div


Picturing Sets


Draw a picture, give an equation,
and answer in a sentence.

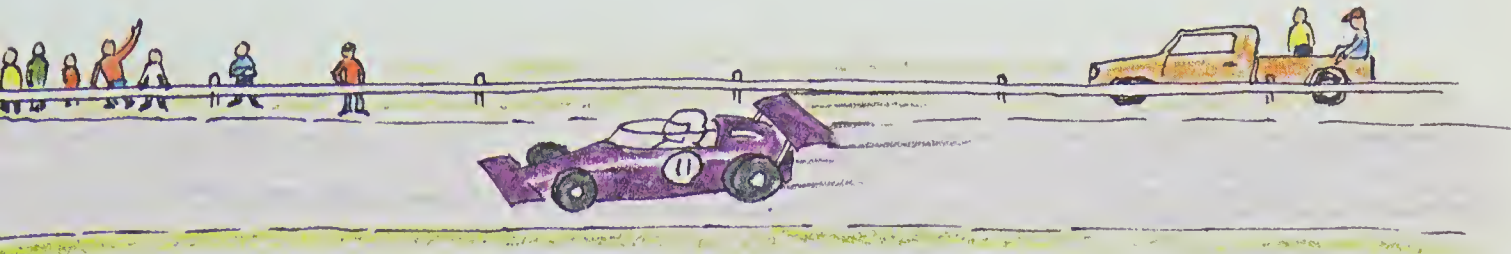
1.

A set of bicycles
has 14 wheels in all.
How many  are there?
2.

A set of skateboards
has 16 wheels in all.
How many  are there?
3.

A set of **triangles**
has 12 sides in all.
How many  are there?
4.

A set of **squares** has
20 sides in all.
How many  are there?



REVIEW

Divide.

A32

1.

$27 \div 3$
2.

$6 \div 3$
3.

$12 \div 3$
4.

$21 \div 3$
5.

$3 \div 3$
6.

$24 \div 3$
7.

$18 \div 3$
8.

$9 \div 3$

A33

9.

$16 \div 4$
10.

$24 \div 4$
11.

$8 \div 4$
12.

$4 \div 4$
13.

$12 \div 4$
14.

$20 \div 4$
15.

$32 \div 4$
16.

$36 \div 4$

A34

17.

$0 \div 8$
18.

$0 \div 3$
19.

$4 \div 1$
20.

$6 \div 1$
21.

$0 \div 2$
22.

$5 \div 1$
23.

$9 \div 1$
24.

$0 \div 9$

Draw a picture to show groups of:

1. 3 in 18

2. 2 in 18

3. 4 in 12

4. 5 in 20

Copy and complete.

5. $3 \times 5 = \blacksquare$

$15 \div 5 = \blacksquare$

7. $\blacksquare \times 3 = 18$

$18 \div 3 = \blacksquare$

6. $2 \times 3 = \blacksquare$

$6 \div 3 = \blacksquare$

8. $\blacksquare \times 4 = 8$

$8 \div 4 = \blacksquare$

Divide.

9. $14 \div 2$

10. $10 \div 2$

11. $2 \div 2$

12. $18 \div 2$

13. $4 \div 2$

14. $12 \div 2$

15. $16 \div 2$

16. $8 \div 2$

17. $40 \div 5$

18. $5 \div 5$

19. $30 \div 5$

20. $25 \div 5$

21. $45 \div 5$

22. $15 \div 5$

23. $20 \div 5$

24. $35 \div 5$

25. $21 \div 3$

26. $3 \div 3$

27. $27 \div 3$

28. $9 \div 3$

29. $24 \div 3$

30. $18 \div 3$

31. $6 \div 3$

32. $15 \div 3$

33. $32 \div 4$

34. $36 \div 4$

35. $28 \div 4$

36. $16 \div 4$

37. $12 \div 4$

38. $8 \div 4$

39. $20 \div 4$

40. $24 \div 4$

41. $0 \div 3$

42. $5 \div 1$

43. $1 \div 1$

44. $0 \div 1$

Solve.

45. 24 children

4 in each



How many



46. 30 children

6 in each



How many



?

MULTIPLICATION

Complete the patterns.

1. 3, 6, ■, ■ 2. 20, 25, ■, ■ 3. 10, 12, ■, ■

Copy the correct numerals in the blanks.

4. $2 + 2 + 2 = \blacksquare$ 5. $3 \times 2 = \blacksquare$ 6. $3 + 3 = \blacksquare$
 7. $2 \times 3 = \blacksquare$ 8. $4 + 4 + 4 + 4 = \blacksquare$ 9. $4 \times \blacksquare = 16$
 10. $5 + 5 + 5 = \blacksquare$ 11. $\blacksquare \times 5 = 15$ 12. $2 \times 9 = 9 \times \blacksquare$

Multiply.

- | | | | |
|------------------|------------------|------------------|------------------|
| 13. 4×3 | 14. 3×4 | 15. 5×2 | 16. 2×5 |
| 17. 2×6 | 18. 2×7 | 19. 2×8 | 20. 2×9 |
| 21. 2×0 | 22. 2×1 | 23. 2×2 | 24. 2×3 |
| 25. 4×5 | 26. 5×5 | 27. 6×5 | 28. 7×5 |
| 29. 8×5 | 30. 9×5 | 31. 0×5 | 32. 1×5 |
| 33. 4×3 | 34. 5×3 | 35. 6×3 | 36. 7×3 |
| 37. 0×3 | 38. 1×3 | 39. 2×3 | 40. 3×3 |
| 41. 4×6 | 42. 4×7 | 43. 4×8 | 44. 4×9 |
| 45. 2×4 | 46. 3×4 | 47. 4×4 | 48. 5×4 |

Solve.

49. How much will it cost to buy 2 books?
 3 books?
 4 books?
 5 books?



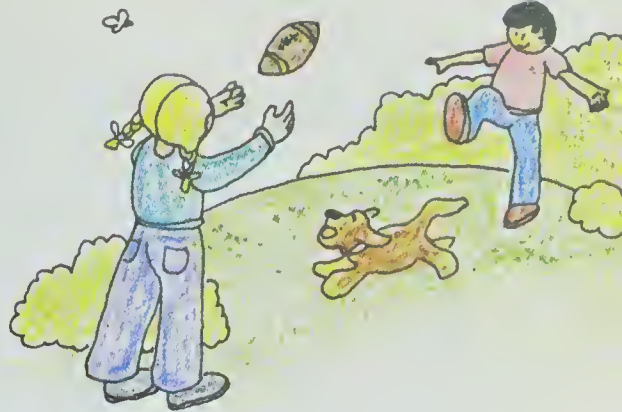
UNIT 9

ADDITION II



Weekend Homework

Help Kim and Skip finish their homework.



Due Monday

1. $\begin{array}{r} 35 \\ + 44 \\ \hline \end{array}$	2. $\begin{array}{r} 72 \\ + 9 \\ \hline \end{array}$	3. $\begin{array}{r} 84 \\ + 52 \\ \hline \end{array}$	4. $\begin{array}{r} 58 \\ + 68 \\ \hline \end{array}$	Kim
6. $\begin{array}{r} 35 \\ + 7 \\ \hline \end{array}$	7. $\begin{array}{r} 74 \\ + 74 \\ \hline \end{array}$	8. $\begin{array}{r} 93 \\ + 99 \\ \hline \end{array}$	9. $\begin{array}{r} 63 \\ + 67 \\ \hline \end{array}$	5. $\begin{array}{r} 75 \\ + 22 \\ \hline \end{array}$
11. $\begin{array}{r} 85 \\ + 75 \\ \hline \end{array}$	12. $\begin{array}{r} 66 \\ + 37 \\ \hline \end{array}$	13. $\begin{array}{r} 94 \\ + 8 \\ \hline \end{array}$	14. $\begin{array}{r} 53 \\ + 78 \\ \hline \end{array}$	10. $\begin{array}{r} 18 \\ + 48 \\ \hline \end{array}$

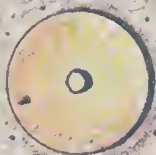


Due Monday

1. $\begin{array}{r} 45 \\ + 86 \\ \hline \end{array}$	2. $\begin{array}{r} 56 \\ + 46 \\ \hline \end{array}$	3. $\begin{array}{r} 70 \\ + 33 \\ \hline \end{array}$	4. $\begin{array}{r} 87 \\ + 73 \\ \hline \end{array}$	5. $\begin{array}{r} 27 \\ + 39 \\ \hline \end{array}$
6. $\begin{array}{r} 88 \\ + 42 \\ \hline \end{array}$	7. $\begin{array}{r} 95 \\ + 97 \\ \hline \end{array}$	8. $\begin{array}{r} 86 \\ + 62 \\ \hline \end{array}$	9. $\begin{array}{r} 37 \\ + 5 \\ \hline \end{array}$	10. $\begin{array}{r} 77 \\ + 20 \\ \hline \end{array}$
11. $\begin{array}{r} 47 \\ + 79 \\ \hline \end{array}$	12. $\begin{array}{r} 46 \\ + 90 \\ \hline \end{array}$	13. $\begin{array}{r} 34 \\ + 47 \\ \hline \end{array}$	14. $\begin{array}{r} 12 \\ + 67 \\ \hline \end{array}$	



Adding Hundreds



Add ones.
Trade?

$$\begin{array}{r} 342 \\ + 205 \\ \hline 7 \end{array}$$



Add tens.

$$\begin{array}{r} 342 \\ + 205 \\ \hline 47 \end{array}$$



Add hundreds.

$$\begin{array}{r} 342 \\ + 205 \\ \hline 547 \end{array}$$

$$\begin{array}{r} 1 \\ 256 \\ + 536 \\ \hline 2 \end{array}$$



$$\begin{array}{r} 1 \\ 256 \\ + 536 \\ \hline 92 \end{array}$$



$$\begin{array}{r} 1 \\ 256 \\ + 536 \\ \hline 792 \end{array}$$

Saturday Morning Cartoons

EXERCISES

Finish adding.

1. $\begin{array}{r} 235 \\ + 624 \\ \hline \blacksquare 59 \end{array}$

2. $\begin{array}{r} 360 \\ + 412 \\ \hline \blacksquare \blacksquare 2 \end{array}$

3. $\begin{array}{r} 735 \\ + 262 \\ \hline \blacksquare \blacksquare \blacksquare \end{array}$

4. $\begin{array}{r} 740 \\ + 27 \\ \hline \blacksquare \blacksquare \blacksquare \end{array}$

5. $\begin{array}{r} 635 \\ + 104 \\ \hline \blacksquare \blacksquare \blacksquare \end{array}$

6. $\begin{array}{r} \blacksquare \\ 352 \\ + 249 \\ \hline \end{array}$

7. $\begin{array}{r} 352 \\ + 247 \\ \hline \end{array}$

8. $\begin{array}{r} \blacksquare \\ 587 \\ + 108 \\ \hline \end{array}$

9. $\begin{array}{r} 587 \\ + 102 \\ \hline \end{array}$

10. $\begin{array}{r} \blacksquare \\ 108 \\ + 82 \\ \hline \end{array}$

11. $\begin{array}{r} 108 \\ + 81 \\ \hline \end{array}$

12. $\begin{array}{r} \blacksquare \\ 254 \\ + 437 \\ \hline \end{array}$

13. $\begin{array}{r} 254 \\ + 433 \\ \hline \end{array}$

14. $\begin{array}{r} \blacksquare \\ 309 \\ + 608 \\ \hline \end{array}$

15. $\begin{array}{r} 301 \\ + 608 \\ \hline \end{array}$

PRACTICE

Add.

$$\begin{array}{r} 1. \quad 265 \\ + 426 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 347 \\ + 343 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 928 \\ + 61 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 368 \\ + 502 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 204 \\ + 788 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 736 \\ + 54 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 223 \\ + 769 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 839 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 974 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 311 \\ + 479 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 727 \\ + 267 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 680 \\ + 310 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 609 \\ + 101 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 300 \\ + 500 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 886 \\ + 108 \\ \hline \end{array}$$

16. a and b

17. a plus c

18. a and d

19. a plus e

20. b and c

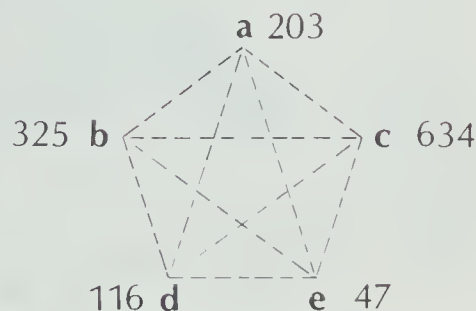
21. b plus d

22. b and e

23. c plus d

24. c and e

25. d plus e



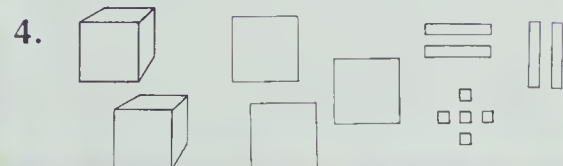
Video Games

How many thousands?

1. 3625

2. 9200

3. 352

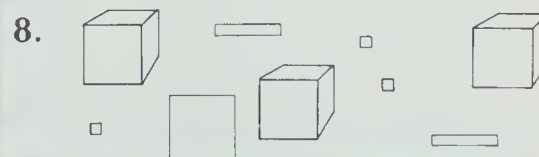


Write in standard form.

5. two thousand one hundred

6. four thousand sixteen

7. nine thousand three



Trading Tens

Skip's
Trading Post

Add tens.
Trade?

Add hundreds.

Kim knows
10 tens = 1 hundred.

$$\begin{array}{r} 3 \text{ } \boxed{6} \text{ } 2 \\ + 1 \text{ } \boxed{3} \text{ } 2 \\ \hline \boxed{9} \text{ } 4 \end{array}$$

$$\begin{array}{r} \boxed{3} \text{ } 6 \text{ } 2 \\ + 1 \text{ } 3 \text{ } 2 \\ \hline \boxed{4} \text{ } 9 \text{ } 4 \end{array}$$

$$\begin{array}{r} \boxed{1} \\ 4 \text{ } \boxed{6} \text{ } 3 \\ + 2 \text{ } \boxed{6} \text{ } 1 \\ \hline \boxed{2} \text{ } 4 \end{array}$$

$$\begin{array}{r} \boxed{1} \\ 4 \text{ } 6 \text{ } 3 \\ + 2 \text{ } 6 \text{ } 1 \\ \hline \boxed{7} \text{ } 2 \text{ } 4 \end{array}$$

EXERCISES

Finish adding.

$$\begin{array}{r} 1 \\ 1. \quad 432 \\ + 184 \\ \hline \blacksquare 16 \end{array}$$

$$\begin{array}{r} 1 \\ 2. \quad 670 \\ + 275 \\ \hline \blacksquare 45 \end{array}$$

$$\begin{array}{r} 1 \\ 3. \quad 587 \\ + 282 \\ \hline \blacksquare 69 \end{array}$$

$$\begin{array}{r} 4. \quad 320 \\ + 420 \\ \hline \blacksquare 40 \end{array}$$

$$\begin{array}{r} 5. \quad 742 \\ + 142 \\ \hline \blacksquare 84 \end{array}$$

$$\begin{array}{r} \blacksquare \\ 6. \quad 273 \\ + 343 \\ \hline \blacksquare \blacksquare 6 \end{array}$$

$$\begin{array}{r} \blacksquare \\ 7. \quad 393 \\ + 552 \\ \hline \blacksquare \blacksquare 5 \end{array}$$

$$\begin{array}{r} \blacksquare \\ 8. \quad 779 \\ + 90 \\ \hline \blacksquare \blacksquare 9 \end{array}$$

$$\begin{array}{r} 9. \quad 700 \\ + 40 \\ \hline \blacksquare \blacksquare 0 \end{array}$$

$$\begin{array}{r} 10. \quad 210 \\ + 674 \\ \hline \blacksquare \blacksquare 4 \end{array}$$

$$\begin{array}{r} 11. \quad 372 \\ + 557 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 682 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 542 \\ + 147 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 364 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 65 \\ + 340 \\ \hline \end{array}$$

PRACTICE

Add.

$$\begin{array}{r} 1. \quad 364 \\ + 353 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 589 \\ + 220 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 402 \\ + 597 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 375 \\ + 624 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 600 \\ + 75 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 721 \\ + 88 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 388 \\ + 110 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 645 \\ + 80 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 103 \\ + 306 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 224 \\ + 494 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 863 \\ + 130 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 759 \\ + 170 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 350 \\ + 359 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 277 \\ + 672 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 833 \\ + 95 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 265 \\ + 700 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 437 \\ + 480 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 891 \\ + 98 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 654 \\ + 182 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 163 \\ + 772 \\ \hline \end{array}$$

$$21. \quad a + b$$

$$22. \quad a + c$$

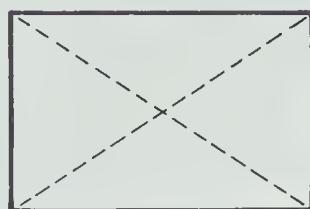
$$23. \quad a + d$$

$$24. \quad b + c$$

$$25. \quad b + d$$

$$26. \quad c + d$$

132 a



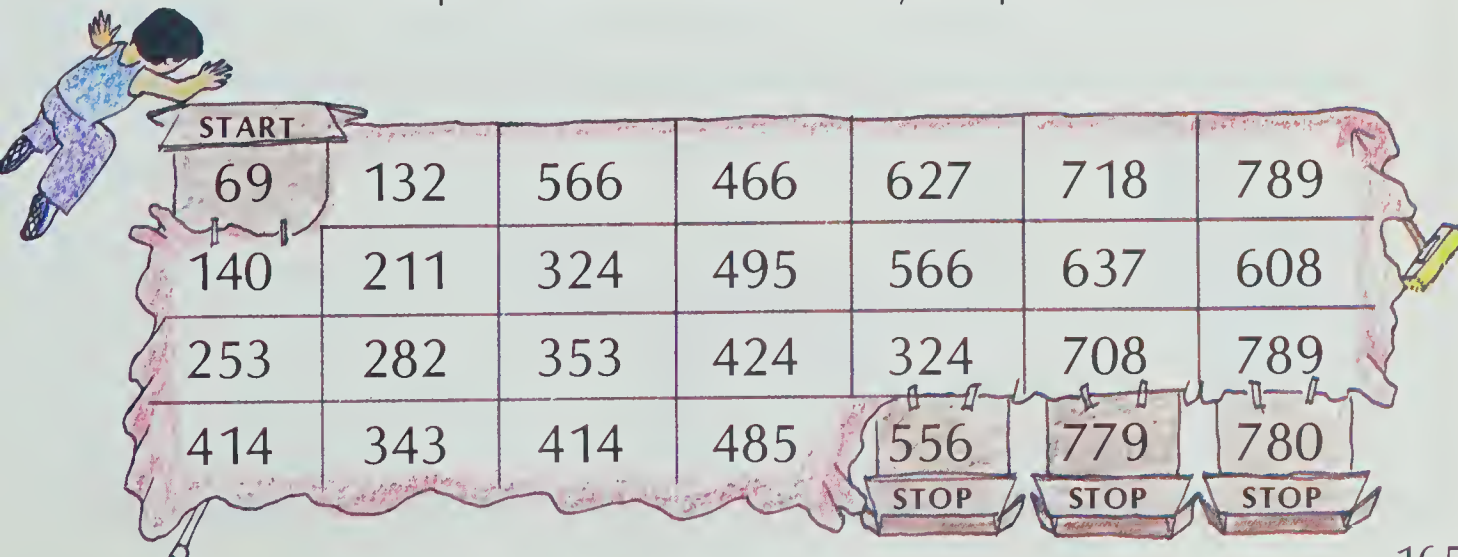
b 374

645 c

d 81

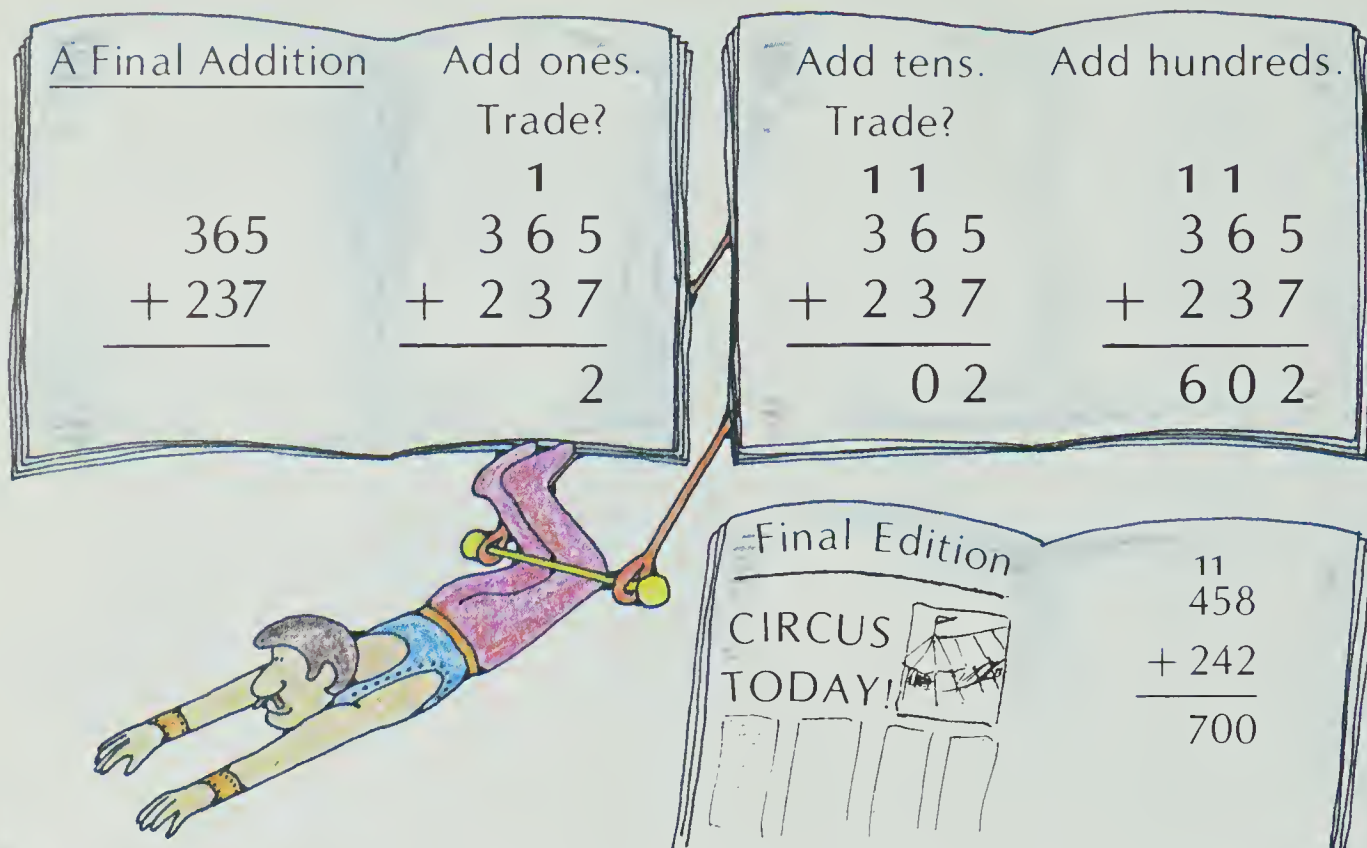
A-mazing

Add 71 at each step. List the numbers in your path.



Trading Ones and Tens

After Saturday lunch, the family reads the newspaper.



EXERCISES

Add.

$$\begin{array}{r} \blacksquare \blacksquare \\ 1. \quad 245 \\ + 359 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \blacksquare \\ 2. \quad 816 \\ + 96 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \\ 3. \quad 329 \\ + 349 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \blacksquare \\ 4. \quad 366 \\ + 523 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \blacksquare \\ 5. \quad 326 \\ + 297 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \blacksquare \\ 6. \quad 639 \\ + 183 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \\ 7. \quad 827 \\ + 91 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \\ 8. \quad 445 \\ + 527 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \\ 9. \quad 485 \\ + 273 \\ \hline \end{array}$$

$$\begin{array}{r} \blacksquare \blacksquare \\ 10. \quad 707 \\ + 194 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 334 \\ + 287 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 807 \\ + 105 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 656 \\ + 156 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 392 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 475 \\ + 9 \\ \hline \end{array}$$

PRACTICE

Add.

$$\begin{array}{r} 1. \quad 736 \\ + 165 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 425 \\ + 287 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 892 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 663 \\ + 219 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 821 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 705 \\ + 199 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 800 \\ + 156 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 306 \\ + 287 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 212 \\ + 739 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 358 \\ + 578 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 832 \\ + 150 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 744 \\ + 88 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 536 \\ + 298 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 670 \\ + 280 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 733 \\ + 77 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 480 \\ + 282 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 765 \\ + 185 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 639 \\ + 288 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 247 \\ + 353 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 524 \\ + 198 \\ \hline \end{array}$$

$$21. \quad a + b$$

$$22. \quad a + c$$

$$23. \quad a + d$$

$$24. \quad a + e$$

$$25. \quad a + f$$

$$26. \quad b + c$$

$$27. \quad b + d$$

$$28. \quad b + e$$

$$29. \quad b + f$$

$$30. \quad c + d$$

$$31. \quad c + e$$

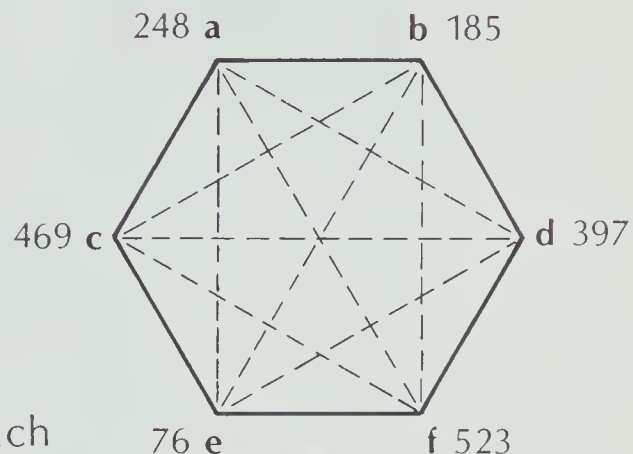
$$32. \quad c + f$$

$$33. \quad d + e$$

$$34. \quad d + f$$

$$35. \quad e + f$$

$$36. \quad \text{double each}$$



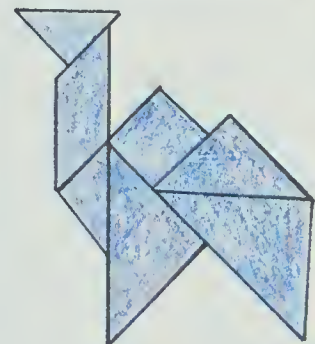
Circus News

Trace the teacher's
Tangram Puzzle.

Then make these
circus animals.



fox



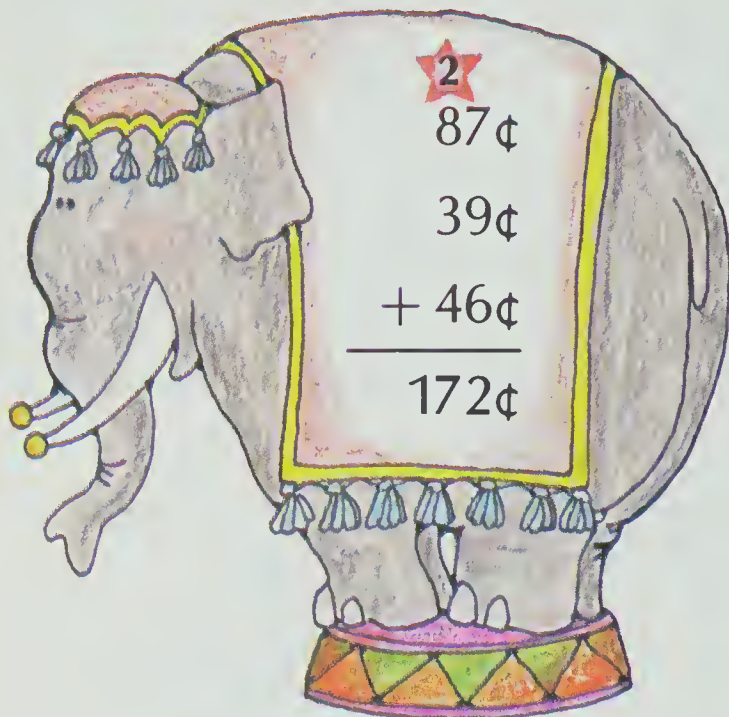
camel

Three 2-digit Addends

Kim has 87¢ for the circus.

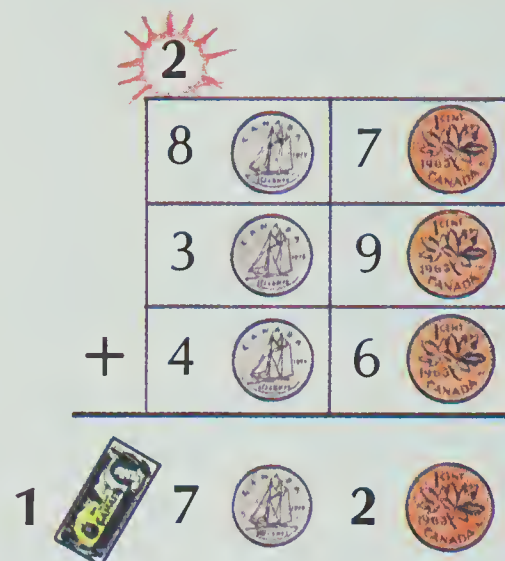
Skip has 39¢ in one bank and 46¢ in another.

Altogether they have \$1.72.



10 pennies = 1 dime

10 dimes = 1 dollar



20 pennies = 2 dimes

20 dimes = 2 dollars

EXERCISES

Add.

1.
$$\begin{array}{r} 9 \\ 5 \\ + 8 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 6 \\ 3 \\ + 2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} \blacksquare \\ 49 \\ 35 \\ + 28 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 7 \\ 5 \\ + 8 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 9 \\ 6 \\ + 8 \\ \hline \end{array}$$

6.
$$\begin{array}{r} \blacksquare \\ 77 \\ 65 \\ + 88 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 4 \\ 6 \\ + 5 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 2 \\ 9 \\ + 9 \\ \hline \end{array}$$

9.
$$\begin{array}{r} \blacksquare \\ 14 \\ 96 \\ + 95 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 8 \\ 3 \\ + 4 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 3 \\ 5 \\ + 1 \\ \hline \end{array}$$

12.
$$\begin{array}{r} \blacksquare \\ 28 \\ 53 \\ + 14 \\ \hline \end{array}$$

PRACTICE

Add.

- | | | | | |
|------------|------------|------------|------------|------------|
| 1. 76 | 2. 31 | 3. 83 | 4. 63 | 5. 69 |
| 28 | 54 | 62 | 27 | 89 |
| <u>+49</u> | <u>+23</u> | <u>+80</u> | <u>+18</u> | <u>+49</u> |

Show the answers in two ways: using ¢ and \$.

6. 2 rabbits and a monkey
7. 2 rabbits and a lion
8. a monkey and 2 lions



68¢
rabbit



85¢
monkey



43¢
lion

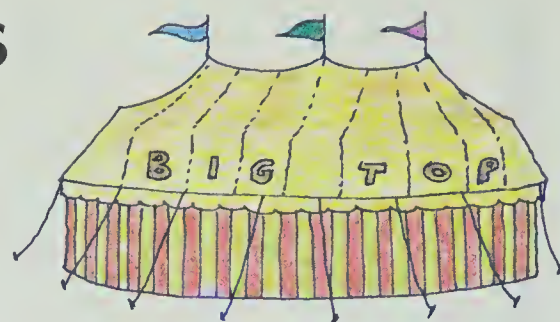
REVIEW

Add.

- | | | | | | |
|-----|------------------|------------------|------------------|------------------|------------------|
| A35 | 1. 365 | 2. 428 | 3. 965 | 4. 432 | 5. 876 |
| | <u>+426</u> | <u>+345</u> | <u>+34</u> | <u>+258</u> | <u>+116</u> |
| A36 | 6. 265 | 7. 891 | 8. 375 | 9. 824 | 10. 697 |
| | <u>+384</u> | <u>+25</u> | <u>+184</u> | <u>+83</u> | <u>+261</u> |
| A37 | 11. 765 | 12. 284 | 13. 376 | 14. 348 | 15. 563 |
| | <u>+166</u> | <u>+448</u> | <u>+424</u> | <u>+651</u> | <u>+289</u> |
| A38 | 16. 65 | 17. 48 | 18. 76 | 19. 84 | 20. 27 |
| | 25
<u>+15</u> | 48
<u>+48</u> | 54
<u>+32</u> | 59
<u>+78</u> | 28
<u>+17</u> |

Three-Digit Addends

Three circus animals stand on the scales.
They have a total mass of 837 kilograms.



Add ones.
Trade?

$$\begin{array}{r} \boxed{1} \\ 178 \\ 362 \\ + 297 \\ \hline 7 \end{array}$$

Add tens.
Trade?

$$\begin{array}{r} \star \boxed{21} \\ 178 \\ 362 \\ + 297 \\ \hline 37 \end{array}$$

Add
hundreds.

$$\begin{array}{r} \boxed{21} \\ 178 \text{ kg} \\ 362 \text{ kg} \\ + 297 \text{ kg} \\ \hline 837 \text{ kg} \end{array}$$

EXERCISES

Add.

$$\begin{array}{r} 1. \quad 6 \\ \quad 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 9 \\ \quad 4 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 286 \\ \quad 143 \\ + 194 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 7 \\ \quad 8 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 7 \\ \quad 5 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 357 \\ \quad 158 \\ + 199 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 6 \\ \quad 4 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 6 \\ \quad 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 456 \\ \quad 164 \\ + 238 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 5 \\ \quad 3 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 4 \\ \quad 8 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 235 \\ \quad 283 \\ + 59 \\ \hline \end{array}$$

PRACTICE

Add.

$$\begin{array}{r} 1. \quad 176 \\ 255 \\ + 389 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 252 \\ 104 \\ + 631 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 234 \\ 65 \\ + 165 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 449 \\ 444 \\ + 48 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 329 \\ 229 \\ + 301 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 287 \\ 427 \\ + 198 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 354 \\ 12 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 156 \\ 232 \\ + 356 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 900 \\ 6 \\ + 70 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 265 \\ 378 \\ + 78 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 273 \\ 79 \\ + 379 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 258 \\ 158 \\ + 358 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 173 \\ 174 \\ + 102 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 296 \\ 294 \\ + 297 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 285 \\ 475 \\ + 166 \\ \hline \end{array}$$

Find the total mass.

16.   

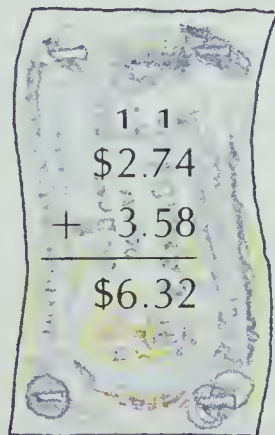
17.   

18.   

19.   

20.     

Dollars and ... Sense?



Add.

$$\begin{array}{r} 1. \quad \$1.65 \\ + 3.78 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \$2.48 \\ + 5.34 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad \$3.94 \\ + 4.87 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad \$2.82 \\ + 2.84 \\ \hline \end{array}$$

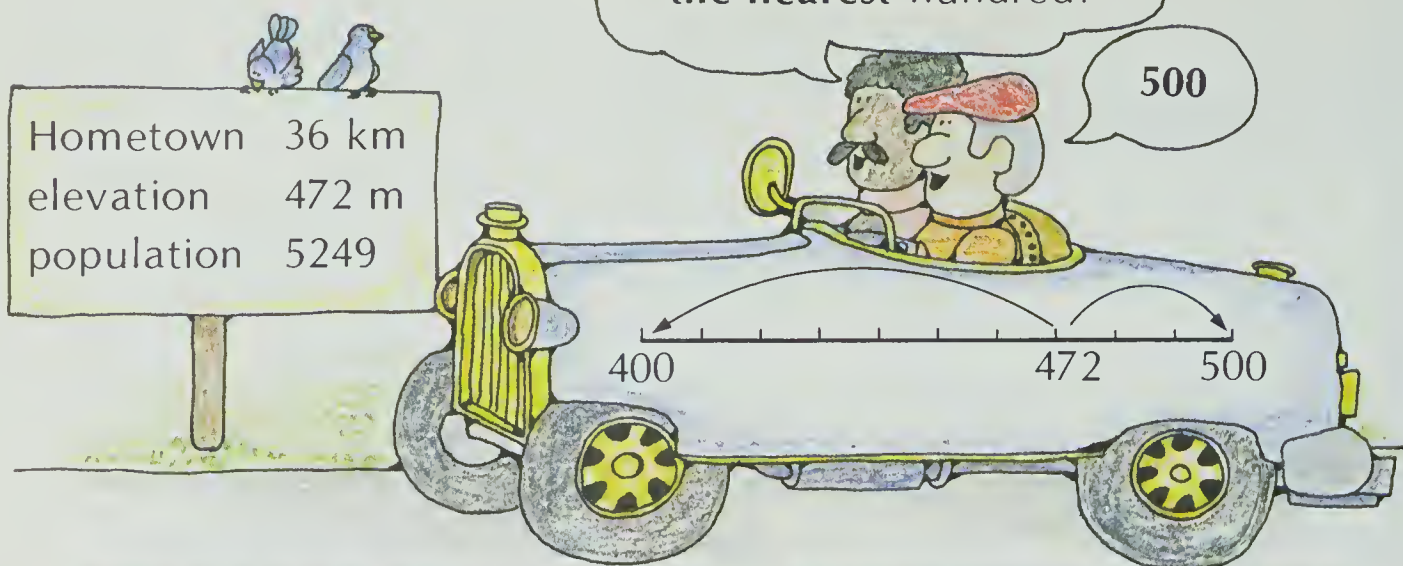
$$\begin{array}{r} 5. \quad \$6.77 \\ + 0.77 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \$0.75 \\ + 0.25 \\ \hline \end{array}$$

Rounding

What is 472 rounded to the nearest hundred?

500



Round to the nearest ten.

30	36	40
470	472	480
5240	5249	5250

Round to the nearest hundred.

0	36	100
400	472	500
5200	5249	5300

EXERCISES

Round to the nearest ten.

- 56: 50 or 60
- 123: 120 or 130
- 75: 70 or 80
- 767: 760 or 770
- 97: 90 or 100
- 242: 240 or 250

Round to the nearest hundred.

- 123: 100 or 200
- 757: 700 or 800
- 824: 820 or 830
- 196: 190 or 200

PRACTICE

Round to the nearest ten.

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. 82 | 2. 35 | 3. 24 | 4. 8 | 5. 99 |
| 6. 123 | 7. 348 | 8. 275 | 9. 197 | 10. 571 |
| 11. 121 | 12. 305 | 13. 627 | 14. 704 | 15. 101 |

Round to the nearest hundred.

- | | | | | |
|----------|----------|----------|----------|---------|
| 16. 620 | 17. 790 | 18. 408 | 19. 865 | 20. 125 |
| 21. 259 | 22. 849 | 23. 751 | 24. 325 | 25. 25 |
| 26. 3465 | 27. 7205 | 28. 3649 | 29. 1970 | 30. 975 |

Trading Hundreds

10 hundreds = 1 thousand

20 hundreds = 2 thousands

- | | | | | |
|--|--|---|--|--|
| 1. $\begin{array}{r} 900 \\ + 500 \\ \hline \end{array}$ | 2. $\begin{array}{r} 600 \\ + 600 \\ \hline \end{array}$ | 3. $\begin{array}{r} 875 \\ + 424 \\ \hline \end{array}$ | 4. $\begin{array}{r} 546 \\ + 886 \\ \hline \end{array}$ | 5. $\begin{array}{r} 938 \\ + 698 \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 783 \\ + 432 \\ \hline \end{array}$ | 7. $\begin{array}{r} 265 \\ + 735 \\ \hline \end{array}$ | 8. $\begin{array}{r} 394 \\ + 806 \\ \hline \end{array}$ | 9. $\begin{array}{r} 749 \\ + 888 \\ \hline \end{array}$ | 10. $\begin{array}{r} 765 \\ + 436 \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 782 \\ 354 \\ + 268 \\ \hline \end{array}$ | 12. $\begin{array}{r} 985 \\ 409 \\ + 369 \\ \hline \end{array}$ | 13. $\begin{array}{r} 638 \\ 806 \\ + 842 \\ \hline \end{array}$ | 14. $\begin{array}{r} 868 \\ 643 \\ + 825 \\ \hline \end{array}$ | 15. $\begin{array}{r} 842 \\ 637 \\ + 308 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 658243 \\ + 438927 \\ \hline \end{array}$ | | 17. $\begin{array}{r} 43265802 \\ + 38793099 \\ \hline \end{array}$ | | |

Estimating Sums

To estimate sums: Round the addends.

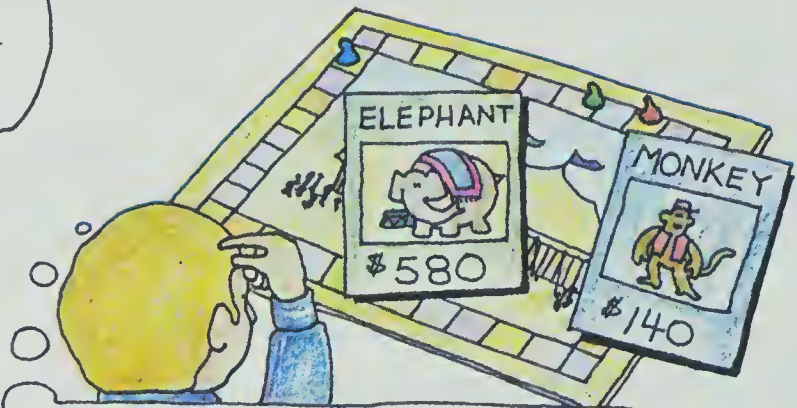
Then add.

$$285 + 423$$

$$300 + 400$$

$$300 + 400 = 700$$

I read 212 pages today
and 373 pages yesterday.
That's about 600 in all.



Can I buy these? I have only \$800.
I can because they cost about \$700.

EXERCISES

Write an estimate of the sum.

$$\begin{array}{r} 1. \quad 480 \\ + 210 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 186 \\ + 592 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 380 \\ + 317 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 62 \\ + 72 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 57 \\ + 92 \\ \hline \end{array}$$

Write an estimate first. Then check by adding.

$$\begin{array}{r} 6. \quad 356 \\ + 421 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 635 \\ + 275 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 106 \\ + 793 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 682 \\ + 193 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 251 \\ + 249 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 76 \\ + 13 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 93 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 83 \\ + 87 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 46 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 98 \\ + 96 \\ \hline \end{array}$$

PRACTICE

Estimate each sum.

1. Kim's reading book has 175 pages.
Her math book has 240 pages.
About how many pages are there in all?

2. Skip has a dog card worth \$185.
He has a tiger card worth \$620.
About how much are these cards worth?

3.
$$\begin{array}{r} 563 \\ + 222 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 289 \\ + 572 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 435 \\ + 386 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 668 \\ + 209 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 137 \\ + 251 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 64 \\ + 89 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 35 \\ + 68 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 70 \\ + 93 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 418 \\ + 75 \\ \hline \end{array}$$

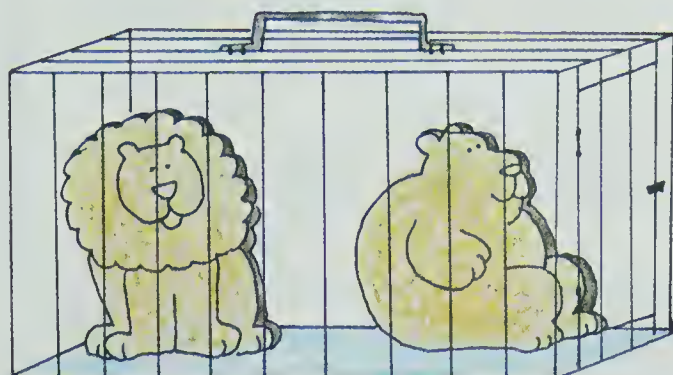
12.
$$\begin{array}{r} 358 \\ + 96 \\ \hline \end{array}$$

13. Check questions 1 to 12 by adding.

Animal Crackers

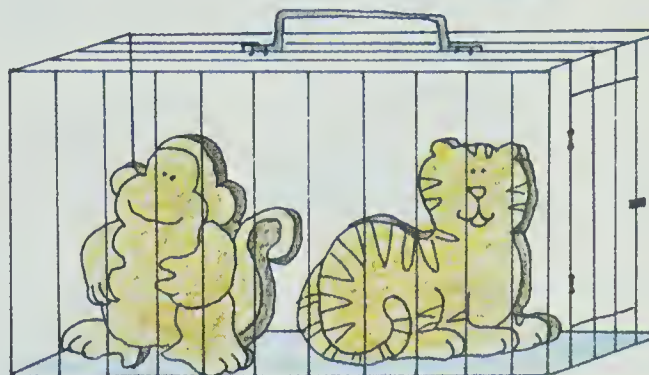
Kim has 4 animal crackers and 2 cages.
She puts a pair of crackers in each cage.
In how many ways can she do this.?

Hint! Make a list of all the pairs.



lion

bear



monkey

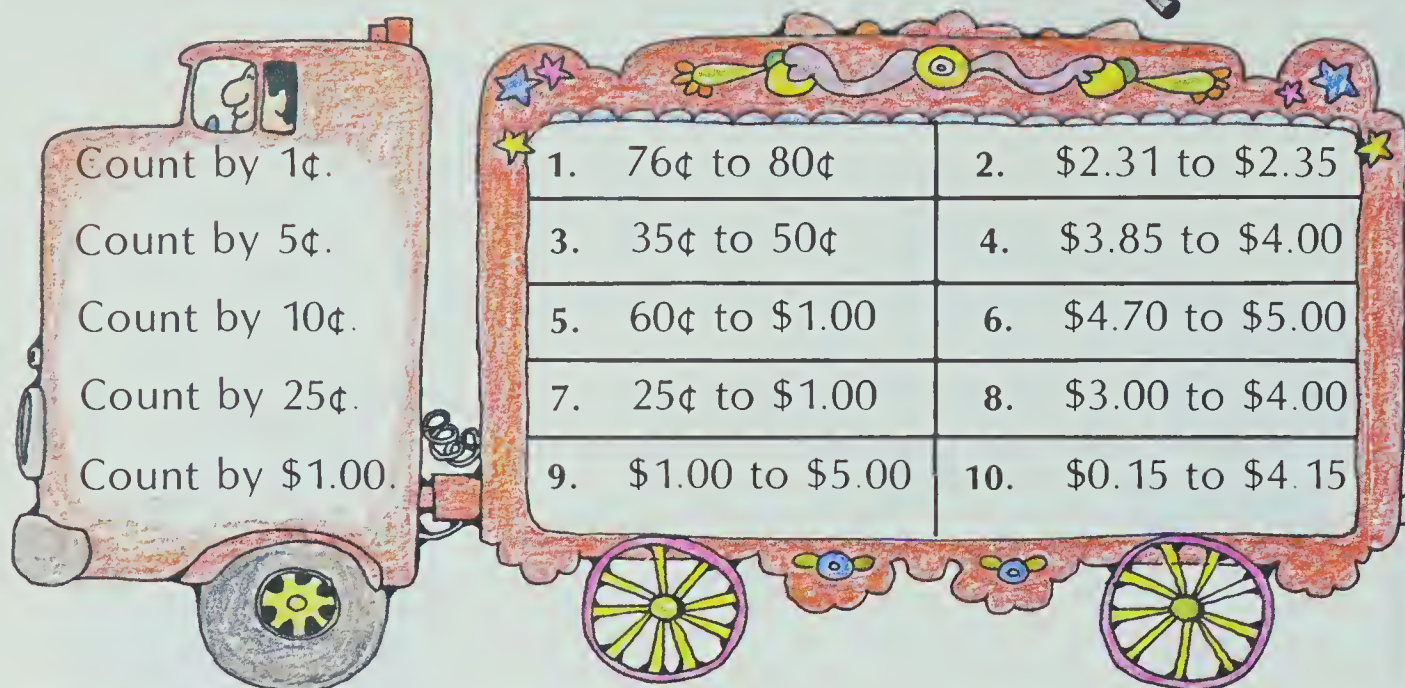
tiger

Making Change

First, try these in your head.
Then, write the answers.



Mental Math
Problems



Cost plus change equals money paid.








\$1.64 →	→	→	→
\$1.65	\$1.75	\$2.00	
11. \$3.70 	12. \$2.65 		
13. \$0.49 	14. \$4.89 		
15. \$1.34 			
16. 70¢ 			

Problem Solving

Make change.

Use the number of coins and bills shown.



Cost	Change	Money Paid
\$3.94		\$5.00
1. \$0.73		\$1.00
2. \$1.34		\$1.50
3. \$1.59		\$2.00
4. \$2.74		\$5.00
5. \$3.30		\$4.00
6. \$3.13		\$3.50

REVIEW

Add.

A39

1. 736

129

$+ 123$

2. 486

286

$+ 299$

3. 271

179

$+ 379$

4. 356

246

$+ 248$

Round each to the nearest ten **and** nearest hundred.

N9

5. 346

6. 655

7. 74

8. 309

Estimate the sum.

A40

9. 358

$+ 421$

10. 409

$+ 508$

11. 78

$+ 42$

12. 33

$+ 86$

TEST

UNIT 9

Add.

$$\begin{array}{r} 1. \quad 357 \\ + 542 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 268 \\ + 614 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 824 \\ + 159 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 374 \\ + 216 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 724 \\ + 184 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 356 \\ + 473 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 184 \\ + 815 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 255 \\ + 590 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 635 \\ + 186 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 749 \\ + 195 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 676 \\ + 276 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 543 \\ + 257 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 26 \\ \quad 32 \\ + 32 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 37 \\ \quad 48 \\ + 86 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 43 \\ \quad 76 \\ + 99 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 98 \\ \quad 88 \\ + 48 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 356 \\ \quad 235 \\ + 244 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 478 \\ \quad 187 \\ + 288 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 263 \\ \quad 258 \\ + 194 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 149 \\ \quad 368 \\ + 326 \\ \hline \end{array}$$

Round to the nearest ten and to the nearest hundred.

$$21. \quad 64$$

$$22. \quad 235$$

$$23. \quad 752$$

$$24. \quad 540$$

Estimate the sum.

$$\begin{array}{r} 25. \quad 475 \\ + 335 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 612 \\ + 322 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 480 \\ + 395 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad 229 \\ + 496 \\ \hline \end{array}$$

How many groups of:

1. 3 in 12? 2. 2 in 18? 3. 4 in 8? 4. 5 in 15?

Copy and complete.

5. $7 \times 3 = \blacksquare$
 $21 \div 3 = \blacksquare$



6. $5 \times 4 = \blacksquare$
 $20 \div 4 = \blacksquare$



7. $\blacksquare \times 3 = 15$
 $15 \div 3 = \blacksquare$

8. $\blacksquare \times 4 = 16$
 $16 \div 4 = \blacksquare$

Divide.

- | | | | |
|-----------------|-----------------|-----------------|-----------------|
| 9. $14 \div 2$ | 10. $14 \div 2$ | 11. $18 \div 2$ | 12. $18 \div 3$ |
| 13. $4 \div 2$ | 14. $16 \div 4$ | 15. $12 \div 4$ | 16. $2 \div 2$ |
| 17. $20 \div 5$ | 18. $20 \div 4$ | 19. $25 \div 5$ | 20. $5 \div 5$ |
| 21. $40 \div 5$ | 22. $30 \div 5$ | 23. $15 \div 5$ | 24. $45 \div 5$ |
| 25. $21 \div 3$ | 26. $12 \div 4$ | 27. $9 \div 3$ | 28. $3 \div 3$ |
| 29. $27 \div 3$ | 30. $18 \div 3$ | 31. $24 \div 8$ | 32. $12 \div 3$ |
| 33. $32 \div 4$ | 34. $32 \div 4$ | 35. $20 \div 5$ | 36. $4 \div 4$ |
| 37. $36 \div 4$ | 38. $24 \div 4$ | 39. $20 \div 4$ | 40. $8 \div 2$ |
| 41. $0 \div 2$ | 42. $0 \div 4$ | 43. $0 \div 9$ | 44. $0 \div 7$ |
| 45. $9 \div 1$ | 46. $3 \div 1$ | 47. $1 \div 1$ | 48. $0 \div 1$ |

49. 27  in all
 3  for each tricycle
 How many tricycles?


50. 36  in all
 4  on each bicycle
 How many bicycles?

UNIT 10

SUBTRACTION II



Community Problems



1.
$$\begin{array}{r} 96 \\ - 24 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 78 \\ - 30 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 56 \\ - 46 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 35 \\ - 32 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 48 \\ - 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 73 \\ - 7 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 44 \\ - 8 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 81 \\ - 9 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 50 \\ - 8 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 35 \\ - 6 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 75 \\ - 26 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 84 \\ - 38 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 98 \\ - 19 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 60 \\ - 28 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 32 \\ - 29 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 123 \\ - 31 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 136 \\ - 85 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 109 \\ - 75 \\ \hline \end{array}$$

19.
$$\begin{array}{r} 170 \\ - 80 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 132 \\ - 71 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 132 \\ - 44 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 127 \\ - 69 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 156 \\ - 78 \\ \hline \end{array}$$

24.
$$\begin{array}{r} 110 \\ - 65 \\ \hline \end{array}$$

25.
$$\begin{array}{r} 144 \\ - 97 \\ \hline \end{array}$$

26.
$$\begin{array}{r} 107 \\ - 39 \\ \hline \end{array}$$

27.
$$\begin{array}{r} 103 \\ - 44 \\ \hline \end{array}$$

28.
$$\begin{array}{r} 108 \\ - 86 \\ \hline \end{array}$$

29.
$$\begin{array}{r} 105 \\ - 17 \\ \hline \end{array}$$

30.
$$\begin{array}{r} 100 \\ - 35 \\ \hline \end{array}$$

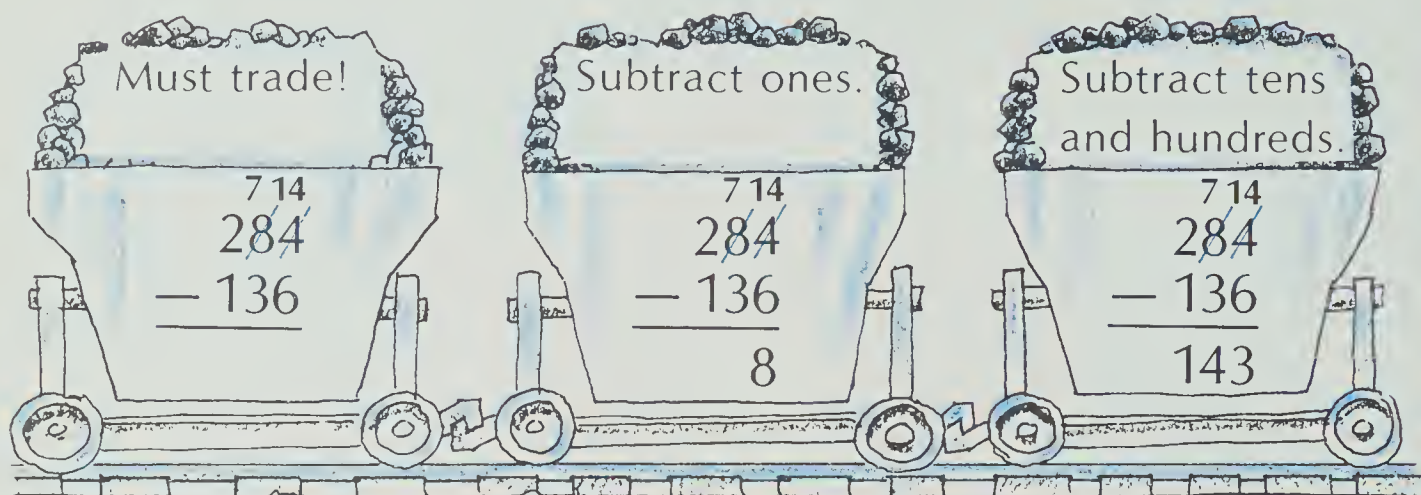
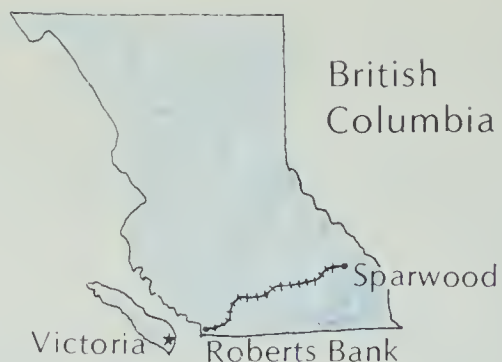
Trading a Ten

284 hopper cars are empty.

136 get filled with coal.

How many are empty now?

$$4 - 6 = ??$$



EXERCISES

Trade 1 ten for 10 ones.

1. $\begin{array}{r} \text{■} \text{■} \\ 7\cancel{3}5 \end{array}$

2. $\begin{array}{r} \text{■} \text{■} \\ 4\cancel{1}6 \end{array}$

3. $\begin{array}{r} \text{■} \text{■} \\ 5\cancel{6}2 \end{array}$

4. $\begin{array}{r} \text{■} \text{■} \\ 2\cancel{7}0 \end{array}$

5. $\begin{array}{r} \text{■} \text{■} \\ 4\cancel{1}3 \end{array}$

Do you need to trade? (yes or no) Decide and subtract.

6. $\begin{array}{r} 862 \\ - 328 \\ \hline \end{array}$

7. $\begin{array}{r} 964 \\ - 137 \\ \hline \end{array}$

8. $\begin{array}{r} 700 \\ - 300 \\ \hline \end{array}$

9. $\begin{array}{r} 345 \\ - 123 \\ \hline \end{array}$

10. $\begin{array}{r} 782 \\ - 524 \\ \hline \end{array}$

11. $\begin{array}{r} 567 \\ - 357 \\ \hline \end{array}$

12. $\begin{array}{r} 436 \\ - 128 \\ \hline \end{array}$

13. $\begin{array}{r} 648 \\ - 420 \\ \hline \end{array}$

14. $\begin{array}{r} 359 \\ - 251 \\ \hline \end{array}$

15. $\begin{array}{r} 640 \\ - 218 \\ \hline \end{array}$

16. $\begin{array}{r} 364 \\ - 24 \\ \hline \end{array}$

17. $\begin{array}{r} 248 \\ - 139 \\ \hline \end{array}$

18. $\begin{array}{r} 926 \\ - 907 \\ \hline \end{array}$

19. $\begin{array}{r} 311 \\ - 2 \\ \hline \end{array}$

20. $\begin{array}{r} 562 \\ - 37 \\ \hline \end{array}$

PRACTICE

Subtract.

A.
$$\begin{array}{r} 362 \\ - 146 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 450 \\ - 335 \\ \hline \end{array}$$

C.
$$\begin{array}{r} 675 \\ - 253 \\ \hline \end{array}$$

D.
$$\begin{array}{r} 928 \\ - 809 \\ \hline \end{array}$$

E.
$$\begin{array}{r} 365 \\ - 158 \\ \hline \end{array}$$

F.
$$\begin{array}{r} 735 \\ - 717 \\ \hline \end{array}$$

G.
$$\begin{array}{r} 892 \\ - 827 \\ \hline \end{array}$$

H.
$$\begin{array}{r} 648 \\ - 327 \\ \hline \end{array}$$

I.
$$\begin{array}{r} 326 \\ - 219 \\ \hline \end{array}$$

J.
$$\begin{array}{r} 774 \\ - 667 \\ \hline \end{array}$$

K.
$$\begin{array}{r} 324 \\ - 319 \\ \hline \end{array}$$

L.
$$\begin{array}{r} 870 \\ - 749 \\ \hline \end{array}$$

M.
$$\begin{array}{r} 926 \\ - 315 \\ \hline \end{array}$$

N.
$$\begin{array}{r} 387 \\ - 68 \\ \hline \end{array}$$

O.
$$\begin{array}{r} 294 \\ - 88 \\ \hline \end{array}$$

P.
$$\begin{array}{r} 375 \\ - 37 \\ \hline \end{array}$$

Q.
$$\begin{array}{r} 654 \\ - 335 \\ \hline \end{array}$$

R.
$$\begin{array}{r} 430 \\ - 7 \\ \hline \end{array}$$

S.
$$\begin{array}{r} 860 \\ - 846 \\ \hline \end{array}$$

T.
$$\begin{array}{r} 276 \\ - 268 \\ \hline \end{array}$$

Canadian Capitals

Find the distances shown to the nearest 100 kilometres.



Like this:

Victoria — Edmonton
900 km



Trading a Hundred

346 cattle on a ranch near Brooks

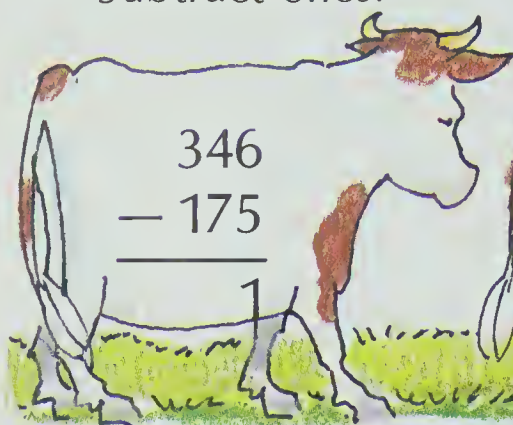
175 are sent to Calgary.

How many cattle are left?



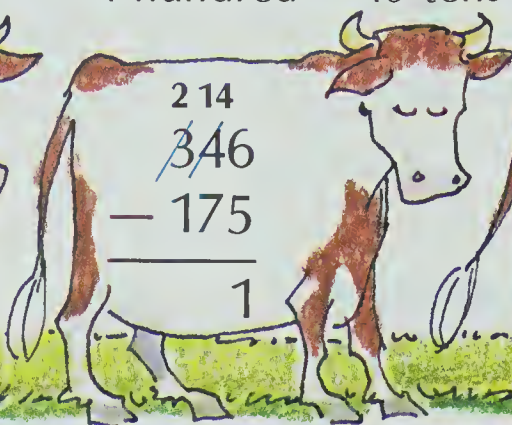
Trade? *No*

Subtract ones.



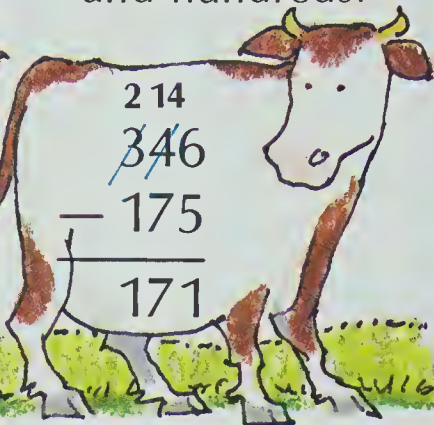
Trade? *Yes*

1 hundred = 10 tens



Subtract tens

and hundreds.



EXERCISES

Trade 1 hundred for 10 tens.

- | | | | | |
|--|--|--|--|---|
| 1. $\begin{array}{r} \blacksquare \blacksquare \\ 645 \end{array}$ | 2. $\begin{array}{r} \blacksquare \blacksquare \\ 720 \end{array}$ | 3. $\begin{array}{r} \blacksquare \blacksquare \\ 356 \end{array}$ | 4. $\begin{array}{r} \blacksquare \blacksquare \\ 648 \end{array}$ | 5. $\begin{array}{r} \blacksquare \blacksquare \\ 705 \end{array}$ |
| 6. $\begin{array}{r} \blacksquare \blacksquare \\ 203 \end{array}$ | 7. $\begin{array}{r} \blacksquare \blacksquare \\ 583 \end{array}$ | 8. $\begin{array}{r} \blacksquare \blacksquare \\ 392 \end{array}$ | 9. $\begin{array}{r} \blacksquare \blacksquare \\ 445 \end{array}$ | 10. $\begin{array}{r} \blacksquare \blacksquare \\ 715 \end{array}$ |

Subtract. Did you need to trade? (yes or no)

- | | | | | |
|---|---|---|---|---|
| 11. $\begin{array}{r} 520 \\ - 360 \\ \hline \end{array}$ | 12. $\begin{array}{r} 539 \\ - 265 \\ \hline \end{array}$ | 13. $\begin{array}{r} 365 \\ - 325 \\ \hline \end{array}$ | 14. $\begin{array}{r} 756 \\ - 275 \\ \hline \end{array}$ | 15. $\begin{array}{r} 937 \\ - 573 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 842 \\ - 371 \\ \hline \end{array}$ | 17. $\begin{array}{r} 809 \\ - 597 \\ \hline \end{array}$ | 18. $\begin{array}{r} 738 \\ - 527 \\ \hline \end{array}$ | 19. $\begin{array}{r} 452 \\ - 162 \\ \hline \end{array}$ | 20. $\begin{array}{r} 540 \\ - 360 \\ \hline \end{array}$ |

PRACTICE

Subtract.

A.
$$\begin{array}{r} 438 \\ - 143 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 922 \\ - 682 \\ \hline \end{array}$$

C.
$$\begin{array}{r} 830 \\ - 620 \\ \hline \end{array}$$

D.
$$\begin{array}{r} 607 \\ - 384 \\ \hline \end{array}$$

E.
$$\begin{array}{r} 607 \\ - 293 \\ \hline \end{array}$$

F.
$$\begin{array}{r} 926 \\ - 472 \\ \hline \end{array}$$

G.
$$\begin{array}{r} 863 \\ - 170 \\ \hline \end{array}$$

H.
$$\begin{array}{r} 558 \\ - 465 \\ \hline \end{array}$$

I.
$$\begin{array}{r} 682 \\ - 342 \\ \hline \end{array}$$

J.
$$\begin{array}{r} 370 \\ - 280 \\ \hline \end{array}$$

K.
$$\begin{array}{r} 634 \\ - 63 \\ \hline \end{array}$$

L.
$$\begin{array}{r} 756 \\ - 94 \\ \hline \end{array}$$

M.
$$\begin{array}{r} 230 \\ - 50 \\ \hline \end{array}$$

N.
$$\begin{array}{r} 504 \\ - 84 \\ \hline \end{array}$$

O.
$$\begin{array}{r} 378 \\ - 90 \\ \hline \end{array}$$

Change to vertical form. Then subtract.

P. $935 - 84$

Q. $563 - 40$

R. $657 - 83$

S. $739 - 592$

T. $208 - 154$

U. $795 - 345$

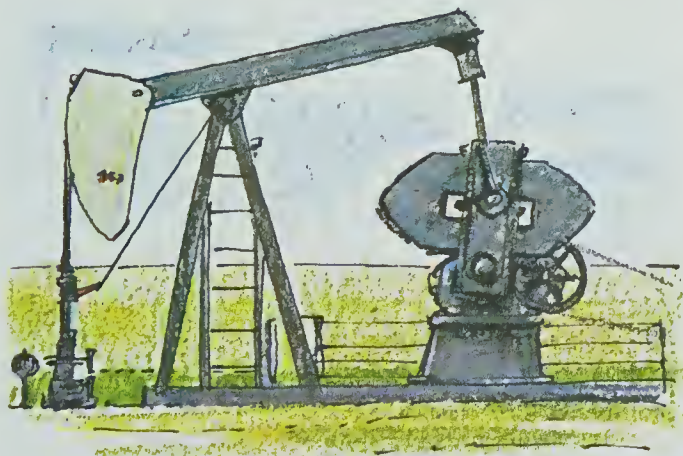
V. $725 - 374$

W. $264 - 183$

X. $540 - 290$

Drilling Deeper

How many metres for each? Put the answers in order.



A $3000 \text{ m} + 600 \text{ m} + 50 \text{ m} + 9 \text{ m}$

A $8 \text{ m} + 70 \text{ m} + 300 \text{ m} + 4000 \text{ m}$

A $20 \text{ m} + 100 \text{ m} + 2000 \text{ m} + 6 \text{ m}$

A $4000 \text{ m} + 6 \text{ m} + 300 \text{ m} + 20 \text{ m}$

A $3 \text{ m} + 2000 \text{ m} + 60 \text{ m}$

A $700 \text{ m} + 10 \text{ m} + 3000 \text{ m}$

Three-Place Subtraction

Trade a ten?		Subtract ones.	Trade a hundred?		Subtract tens.		Subtract hundreds.
$\begin{array}{r} 524 \\ - 248 \\ \hline \end{array}$		$\begin{array}{r} 114 \\ 5\cancel{2}\cancel{4} \\ - 248 \\ \hline 6 \end{array}$		$\begin{array}{r} 4114 \\ \cancel{5}\cancel{2}\cancel{4} \\ - 248 \\ \hline 76 \end{array}$		$\begin{array}{r} 4114 \\ \cancel{5}\cancel{2}\cancel{4} \\ - 248 \\ \hline 276 \end{array}$	

EXERCISES

Trade a ten. Then trade a hundred.

- | | | | | |
|--|--|--|--|---|
| 1. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{3}\cancel{5}\cancel{6} \end{array}$ | 2. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{4}\cancel{2}\cancel{7} \end{array}$ | 3. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{8}\cancel{3}\cancel{5} \end{array}$ | 4. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{6}\cancel{4}\cancel{3} \end{array}$ | 5. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{6}\cancel{7}\cancel{1} \end{array}$ |
| 6. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{6}\cancel{1}\cancel{2} \end{array}$ | 7. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{8}\cancel{5}\cancel{7} \end{array}$ | 8. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{9}\cancel{2}\cancel{4} \end{array}$ | 9. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{3}\cancel{6}\cancel{0} \end{array}$ | 10. $\begin{array}{r} \blacksquare\blacksquare\blacksquare \\ \cancel{2}\cancel{7}\cancel{0} \end{array}$ |

Subtract. Did you need **2 trades**, **1 trade**, or **0 trades**?

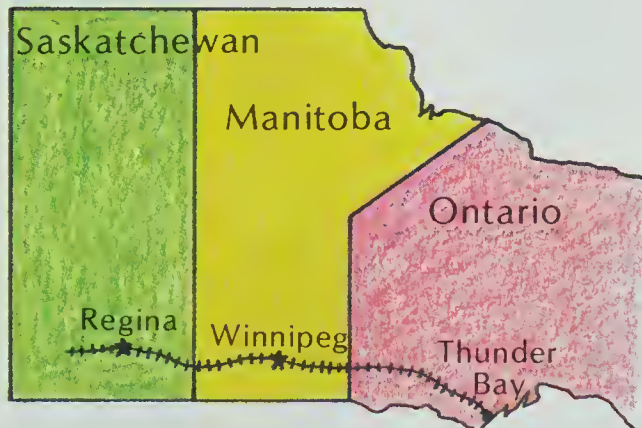
- | | | | | |
|---|---|---|---|---|
| 11. $\begin{array}{r} 835 \\ - 387 \\ \hline \end{array}$ | 12. $\begin{array}{r} 648 \\ - 340 \\ \hline \end{array}$ | 13. $\begin{array}{r} 643 \\ - 196 \\ \hline \end{array}$ | 14. $\begin{array}{r} 356 \\ - 189 \\ \hline \end{array}$ | 15. $\begin{array}{r} 658 \\ - 247 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 857 \\ - 578 \\ \hline \end{array}$ | 17. $\begin{array}{r} 628 \\ - 577 \\ \hline \end{array}$ | 18. $\begin{array}{r} 924 \\ - 786 \\ \hline \end{array}$ | 19. $\begin{array}{r} 372 \\ - 346 \\ \hline \end{array}$ | 20. $\begin{array}{r} 671 \\ - 295 \\ \hline \end{array}$ |
| 21. $\begin{array}{r} 555 \\ - 288 \\ \hline \end{array}$ | 22. $\begin{array}{r} 360 \\ - 164 \\ \hline \end{array}$ | 23. $\begin{array}{r} 457 \\ - 239 \\ \hline \end{array}$ | 24. $\begin{array}{r} 612 \\ - 148 \\ \hline \end{array}$ | 25. $\begin{array}{r} 648 \\ - 283 \\ \hline \end{array}$ |
| 26. $\begin{array}{r} 427 \\ - 49 \\ \hline \end{array}$ | 27. $\begin{array}{r} 752 \\ - 81 \\ \hline \end{array}$ | 28. $\begin{array}{r} 626 \\ - 49 \\ \hline \end{array}$ | 29. $\begin{array}{r} 593 \\ - 187 \\ \hline \end{array}$ | 30. $\begin{array}{r} 270 \\ - 185 \\ \hline \end{array}$ |

PRACTICE

Subtract.

- | | | | | |
|---|---|---|---|---|
| 1. $\begin{array}{r} 823 \\ - 648 \\ \hline \end{array}$ | 2. $\begin{array}{r} 569 \\ - 79 \\ \hline \end{array}$ | 3. $\begin{array}{r} 435 \\ - 276 \\ \hline \end{array}$ | 4. $\begin{array}{r} 770 \\ - 275 \\ \hline \end{array}$ | 5. $\begin{array}{r} 627 \\ - 19 \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 932 \\ - 866 \\ \hline \end{array}$ | 7. $\begin{array}{r} 465 \\ - 326 \\ \hline \end{array}$ | 8. $\begin{array}{r} 376 \\ - 372 \\ \hline \end{array}$ | 9. $\begin{array}{r} 812 \\ - 67 \\ \hline \end{array}$ | 10. $\begin{array}{r} 650 \\ - 271 \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 217 \\ - 49 \\ \hline \end{array}$ | 12. $\begin{array}{r} 986 \\ - 937 \\ \hline \end{array}$ | 13. $\begin{array}{r} 233 \\ - 188 \\ \hline \end{array}$ | 14. $\begin{array}{r} 440 \\ - 352 \\ \hline \end{array}$ | 15. $\begin{array}{r} 627 \\ - 458 \\ \hline \end{array}$ |
| 16. $\begin{array}{r} 762 \\ - 292 \\ \hline \end{array}$ | 17. $\begin{array}{r} 712 \\ - 165 \\ \hline \end{array}$ | 18. $\begin{array}{r} 328 \\ - 4 \\ \hline \end{array}$ | 19. $\begin{array}{r} 762 \\ - 297 \\ \hline \end{array}$ | 20. $\begin{array}{r} 564 \\ - 75 \\ \hline \end{array}$ |
| 21. $\begin{array}{r} 693 \\ - 598 \\ \hline \end{array}$ | 22. $\begin{array}{r} 543 \\ - 527 \\ \hline \end{array}$ | 23. $\begin{array}{r} 736 \\ - 386 \\ \hline \end{array}$ | 24. $\begin{array}{r} 960 \\ - 877 \\ \hline \end{array}$ | 25. $\begin{array}{r} 313 \\ - 176 \\ \hline \end{array}$ |
| 26. $\begin{array}{r} 711 \\ - 86 \\ \hline \end{array}$ | 27. $\begin{array}{r} 633 \\ - 125 \\ \hline \end{array}$ | 28. $\begin{array}{r} 922 \\ - 479 \\ \hline \end{array}$ | 29. $\begin{array}{r} 544 \\ - 84 \\ \hline \end{array}$ | 30. $\begin{array}{r} 355 \\ - 266 \\ \hline \end{array}$ |

Meet the Wheat



1. One stalk of wheat is 95 cm tall. Another is 87 cm high. What is the difference?
2. If it takes 375 grains of wheat to fill a container, how many grains will it take to fill it twice?
3. List 5 foods made from wheat.

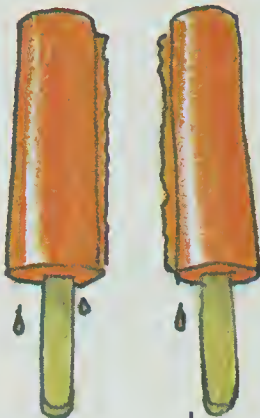
Equal and Unequal Portions

Help the judge.

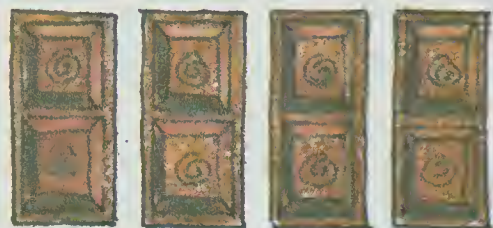
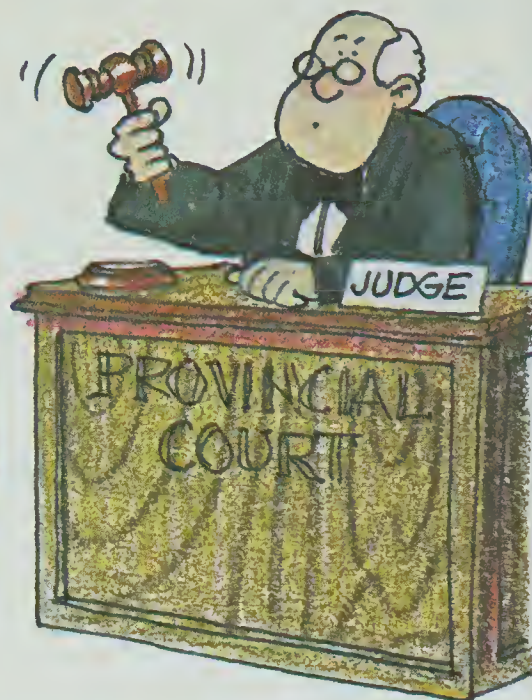
Are the portions **equal** or **unequal**?



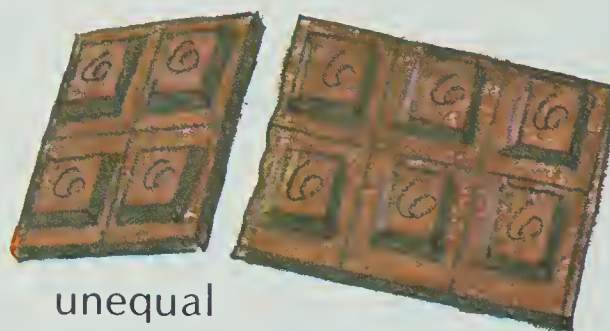
unequal



equal



equal



unequal

EXERCISES

Are the portions equal or unequal?

1.



2.



3.



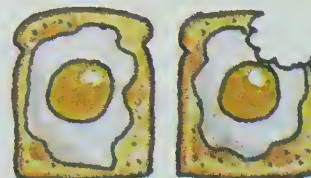
4.



5.

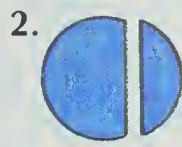


6.



PRACTICE

Are the portions equal or unequal?



Solve.

6. 32 people played "tug-of-war".
17 were on one side.
Were the sides equal?
7. Mary, Joni, and Sam collected 248 pennies.
Mary and Joni both have 83¢.
Sam has the rest.
Do they have equal shares?

REVIEW

Subtract.

A41	1. $\begin{array}{r} 736 \\ - 618 \\ \hline \end{array}$	2. $\begin{array}{r} 442 \\ - 208 \\ \hline \end{array}$	3. $\begin{array}{r} 530 \\ - 514 \\ \hline \end{array}$	4. $\begin{array}{r} 874 \\ - 621 \\ \hline \end{array}$	5. $\begin{array}{r} 685 \\ - 47 \\ \hline \end{array}$
-----	--	--	--	--	---

A42	6. $\begin{array}{r} 736 \\ - 284 \\ \hline \end{array}$	7. $\begin{array}{r} 442 \\ - 182 \\ \hline \end{array}$	8. $\begin{array}{r} 530 \\ - 490 \\ \hline \end{array}$	9. $\begin{array}{r} 874 \\ - 93 \\ \hline \end{array}$	10. $\begin{array}{r} 685 \\ - 683 \\ \hline \end{array}$
-----	--	--	--	---	---

A43	11. $\begin{array}{r} 736 \\ - 359 \\ \hline \end{array}$	12. $\begin{array}{r} 442 \\ - 276 \\ \hline \end{array}$	13. $\begin{array}{r} 530 \\ - 142 \\ \hline \end{array}$	14. $\begin{array}{r} 874 \\ - 785 \\ \hline \end{array}$	15. $\begin{array}{r} 685 \\ - 86 \\ \hline \end{array}$
-----	---	---	---	---	--

Subtraction with 0 Tens

506 = 5 hundreds 0 tens 6 ones

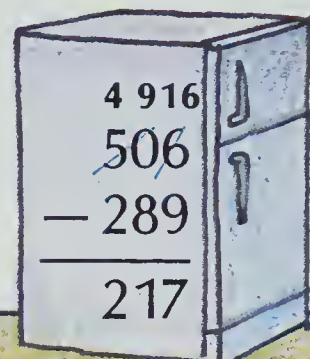
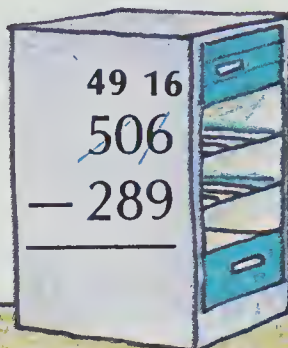
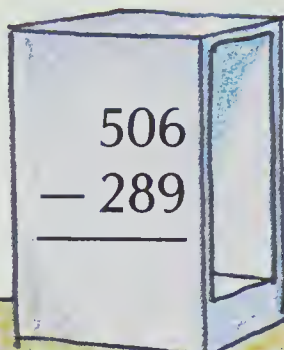
506 = 50 tens 6 ones



Trade? *yes*
0 Tens!

One less than
50 is 49.

Subtract.



EXERCISES

Trade 1 ten for 10 ones.

1. $\begin{array}{r} \text{■■} \\ 70\cancel{4} \end{array}$

2. $\begin{array}{r} \text{■■} \\ 60\cancel{2} \end{array}$

3. $\begin{array}{r} \text{■■} \\ 50\cancel{8} \end{array}$

4. $\begin{array}{r} \text{■■} \\ 80\cancel{1} \end{array}$

5. $\begin{array}{r} \text{■■} \\ 90\cancel{0} \end{array}$

6. $\begin{array}{r} \text{■■} \\ 20\cancel{3} \end{array}$

7. $\begin{array}{r} \text{■■} \\ 30\cancel{5} \end{array}$

8. $\begin{array}{r} \text{■■} \\ 90\cancel{7} \end{array}$

9. $\begin{array}{r} \text{■■} \\ 30\cancel{0} \end{array}$

10. $\begin{array}{r} \text{■■} \\ 60\cancel{0} \end{array}$

Subtract.

11. $\begin{array}{r} 704 \\ - 238 \\ \hline \end{array}$

12. $\begin{array}{r} 602 \\ - 317 \\ \hline \end{array}$

13. $\begin{array}{r} 508 \\ - 409 \\ \hline \end{array}$

14. $\begin{array}{r} 801 \\ - 792 \\ \hline \end{array}$

15. $\begin{array}{r} 900 \\ - 306 \\ \hline \end{array}$

16. $\begin{array}{r} 203 \\ - 35 \\ \hline \end{array}$

17. $\begin{array}{r} 600 \\ - 254 \\ \hline \end{array}$

18. $\begin{array}{r} 300 \\ - 35 \\ \hline \end{array}$

19. $\begin{array}{r} 907 \\ - 560 \\ \hline \end{array}$

20. $\begin{array}{r} 305 \\ - 123 \\ \hline \end{array}$

PRACTICE

Subtract.

$$\begin{array}{r} 1. \quad 305 \\ - 138 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 570 \\ - 429 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 702 \\ - 501 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 204 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 400 \\ - 225 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 730 \\ - 56 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 340 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 602 \\ - 61 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 405 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 304 \\ - 95 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 902 \\ - 217 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 205 \\ - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 720 \\ - 606 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 110 \\ - 45 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 106 \\ - 97 \\ \hline \end{array}$$

Find the difference.

16. 940 and 935

17. 407 and 808

18. 148 and 307

19. 700 and 264

20. 210 and 92

21. 406 and 513

22. 608 and 34

23. 634 and 950

24. 805 and 69

25. 221 and 40

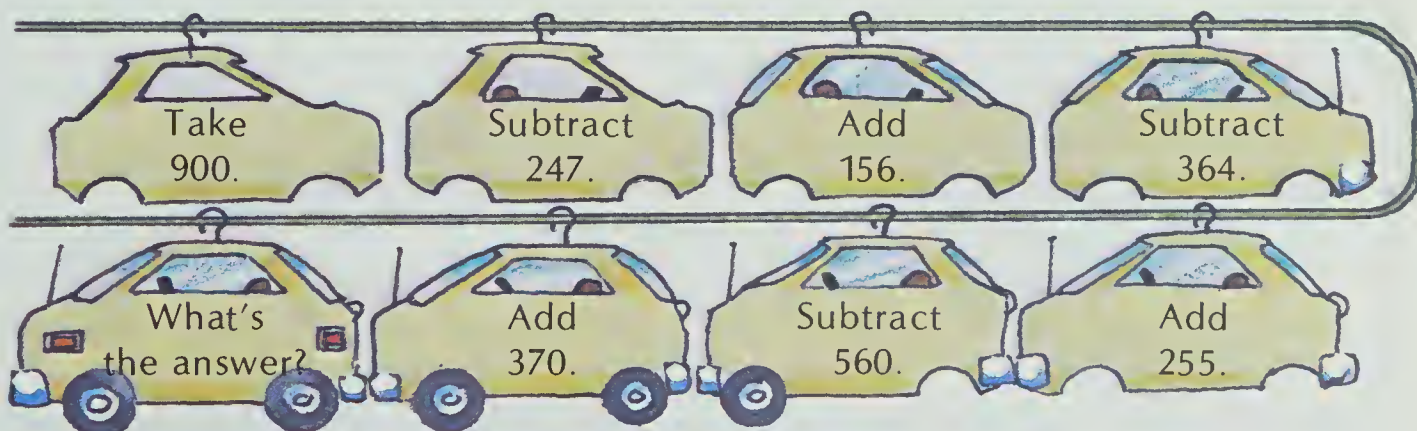
26. 129 and 304

27. 870 and 999

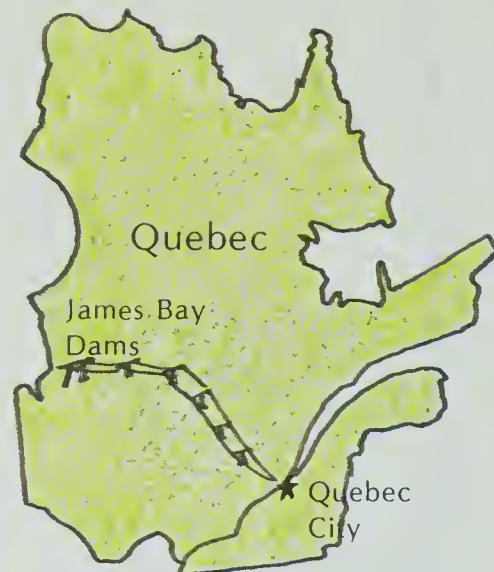
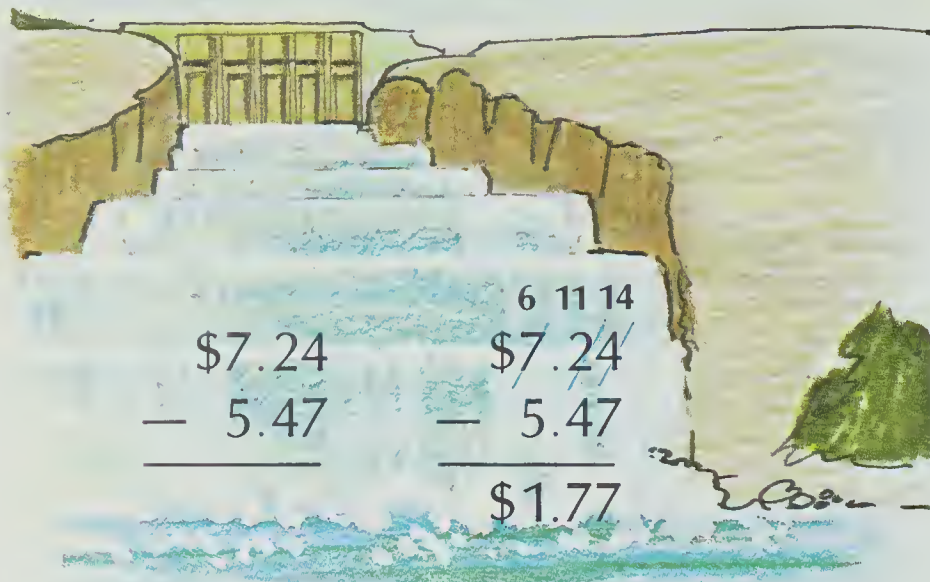
Solve.

28. 270 cars on Monday. 193 on Tuesday.
By how much do they differ?

Move along the Line



Dollar Differences



EXERCISES

Subtract.

$$\begin{array}{r} 1. \quad \$7.24 \\ - 3.02 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 2. \quad \$6.45 \\ - 4.25 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 3. \quad \$7.89 \\ - 6.38 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 4. \quad \$2.56 \\ - 0.23 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 5. \quad \$7.24 \\ - 3.05 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \$6.45 \\ - 4.28 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad \$7.85 \\ - 6.38 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad \$2.56 \\ - 0.27 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad \$7.24 \\ - 3.32 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad \$6.45 \\ - 4.65 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad \$7.89 \\ - 6.98 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad \$2.56 \\ - 0.73 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad \$7.24 \\ - 3.35 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad \$6.45 \\ - 4.68 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad \$7.85 \\ - 6.98 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad \$2.56 \\ - 0.77 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad \$7.04 \\ - 3.35 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad \$6.05 \\ - 4.68 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad \$7.05 \\ - 6.98 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad \$2.06 \\ - 0.77 \\ \hline \end{array}$$

PRACTICE

Find the difference.

- | | |
|----------------------|-----------------------|
| 1. \$7.35 and \$4.62 | 2. \$3.25 and \$7.75 |
| 3. \$9.63 and \$7.59 | 4. \$2.66 and \$4.00 |
| 5. \$3.07 and \$6.70 | 6. \$5.04 and \$0.75 |
| 7. \$8.21 and \$9.57 | 8. \$9.00 and \$5.32 |
| 9. \$7.44 and \$3.80 | 10. \$6.23 and \$2.77 |

Solve.

- Paul has \$6.42. Charles has \$5.77.
Who has more? How much more?
- Hélène made \$4.07. Jean made \$1.29.
Who made less? How much less?
- Roger spent \$3.07. André spent \$7.00.
Who spent more? How much more?
- Marie saved \$3.52. Gisele saved \$6.70.
Who saved less? How much less?

Dairy Products

Give the missing factors.

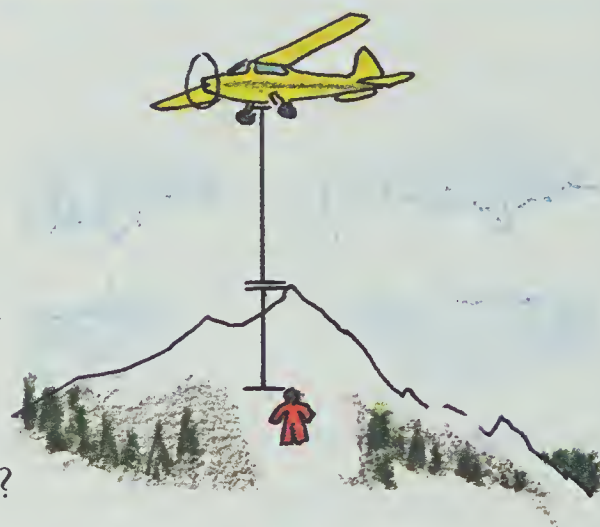
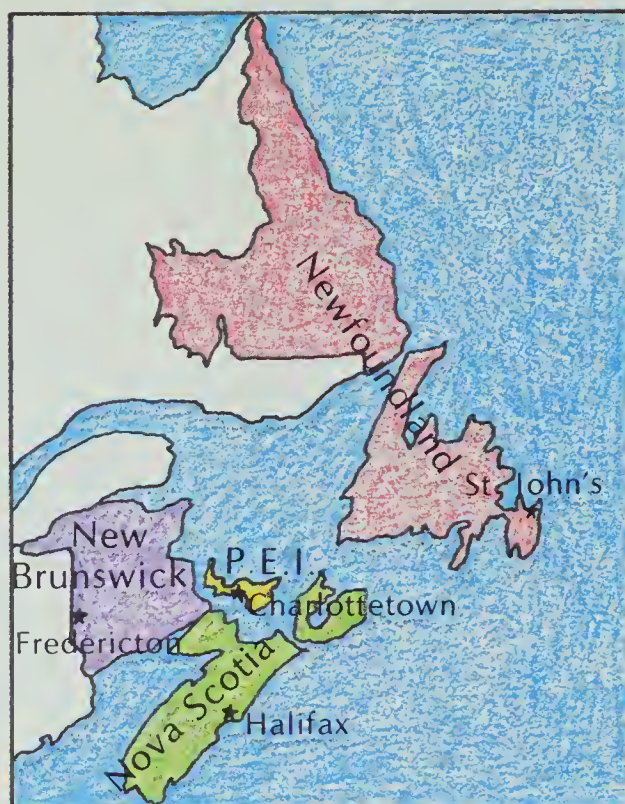
- | | |
|--|--|
| 1. $3 \times \blacksquare = 21$ | 2. $7 \times \blacksquare = 35$ |
| 3. $2 \times \blacksquare = 18$ | 4. $4 \times \blacksquare = 32$ |
| 5. $\blacksquare \times \blacksquare = 14$ | 6. $\blacksquare \times \blacksquare = 25$ |
| 7. $\blacksquare \times \blacksquare = 12$ and $\blacksquare \times \blacksquare = 12$ | |
| 8. $\blacksquare \times \blacksquare = 24$ and $\blacksquare \times \blacksquare = 24$ | |



Two StePS

Show both steps.

- 45 boats out fishing
19 return to Halifax.
25 return to St. John's.
How many still fishing?
- 354 potatoes in a garden
446 in another
235 are dug up.
How many are left?
- 231 trees cut for lumber
129 cut for paper
98 for plywood
How many cut in all?
- An airplane is flying at 950 metres.
Mt. Carleton is 820 metres tall.
You are 50 metres from the top.
How far are you from the airplane?



Each row and each column must have the **same sum**.

5.

8	9	7
	6	10
3		
5		

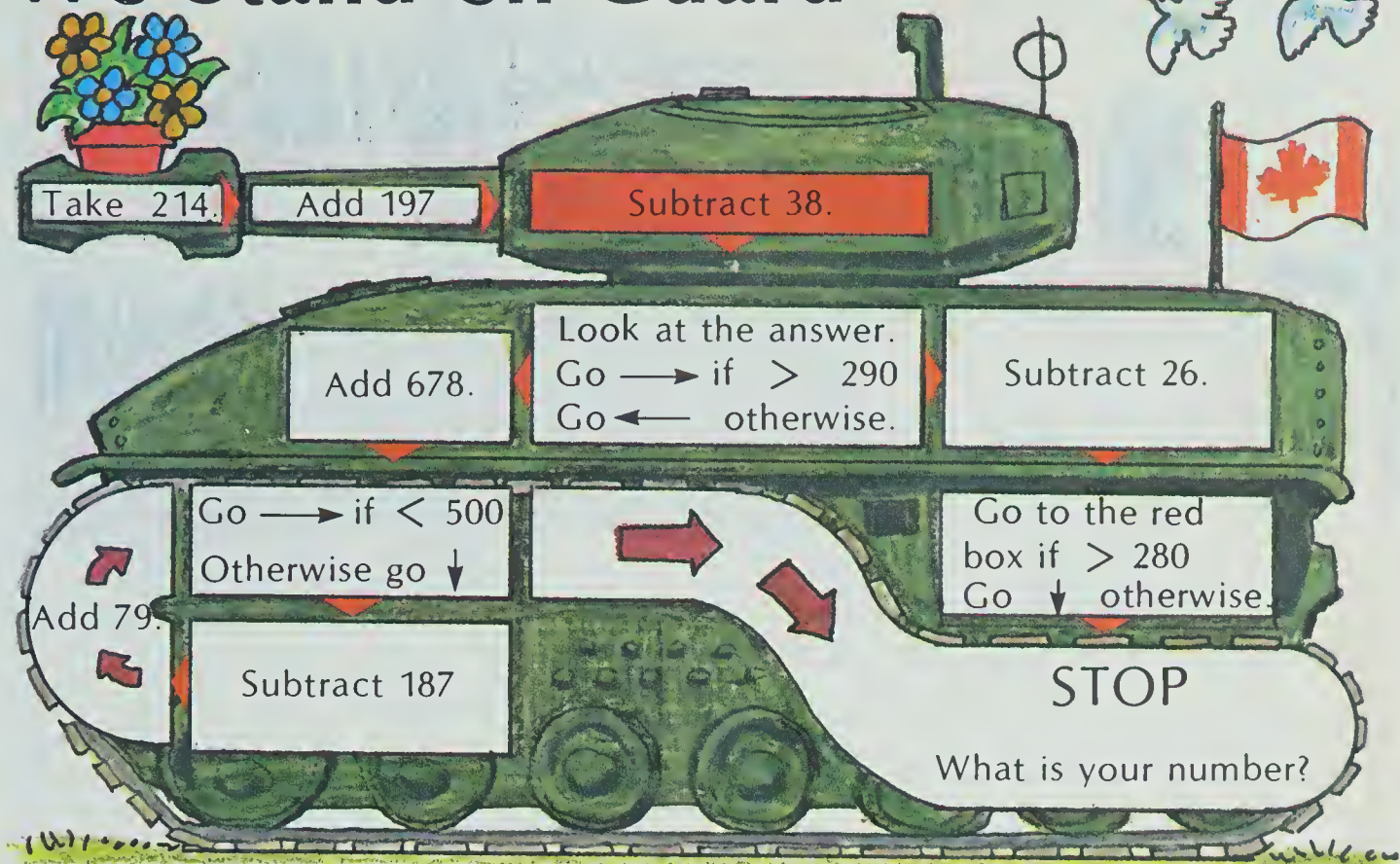
6.

37	45	28
	34	57
16		
	28	53

7.

345	156	297
	47	
	110	
169		539

We Stand on Guard



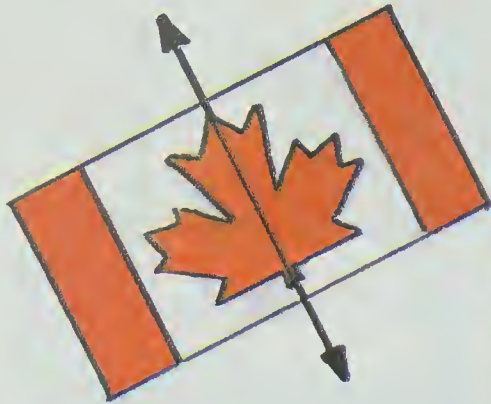
Follow the path above.

It will have you do the problems below in a different order.

Can you do them in the order that the path says?

A.	$\begin{array}{r} 214 \\ + 197 \\ \hline \end{array}$	B.	$\begin{array}{r} 736 \\ + 79 \\ \hline \end{array}$	C.	$\begin{array}{r} 245 \\ + 678 \\ \hline \end{array}$	D.	$\begin{array}{r} 373 \\ - 26 \\ \hline \end{array}$	E.	$\begin{array}{r} 628 \\ + 79 \\ \hline \end{array}$
F.	$\begin{array}{r} 347 \\ - 38 \\ \hline \end{array}$	G.	$\begin{array}{r} 520 \\ + 79 \\ \hline \end{array}$	H.	$\begin{array}{r} 411 \\ - 38 \\ \hline \end{array}$	I.	$\begin{array}{r} 412 \\ + 79 \\ \hline \end{array}$	J.	$\begin{array}{r} 923 \\ - 187 \\ \hline \end{array}$
K.	$\begin{array}{r} 707 \\ - 187 \\ \hline \end{array}$	L.	$\begin{array}{r} 283 \\ - 38 \\ \hline \end{array}$	M.	$\begin{array}{r} 599 \\ - 187 \\ \hline \end{array}$	N.	$\begin{array}{r} 815 \\ - 187 \\ \hline \end{array}$	O.	$\begin{array}{r} 309 \\ - 26 \\ \hline \end{array}$

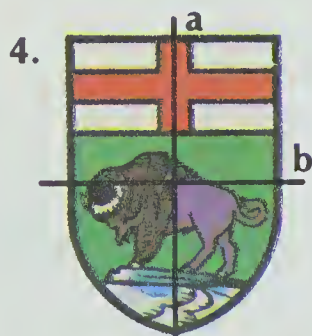
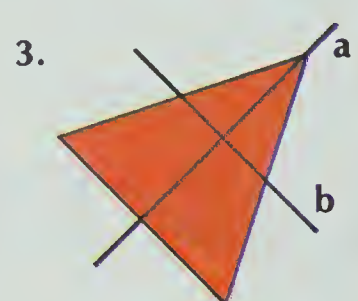
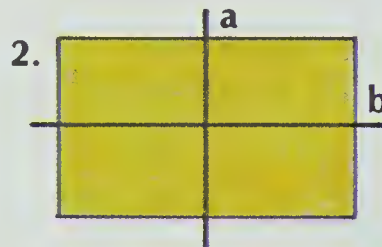
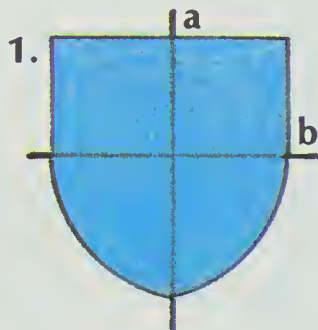
Symmetry



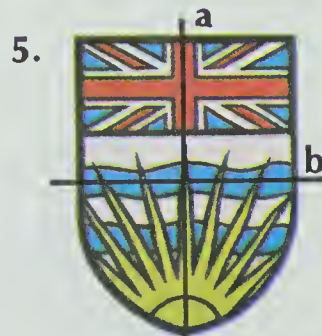
Each line above cuts a picture into equal parts.
If you folded along the line, the parts would match.
This kind of line is called a **line of symmetry**.

EXERCISES

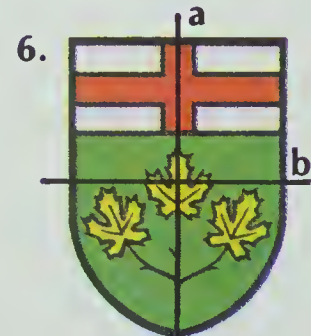
Record each line of symmetry. (Like this: 7. none 8. a, b)



Manitoba



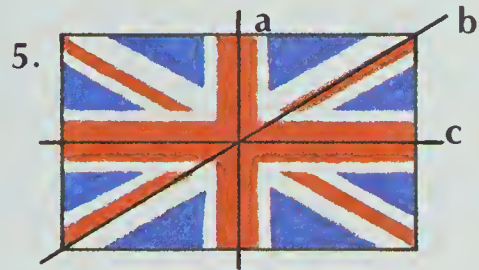
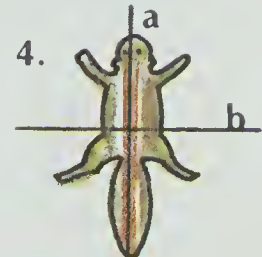
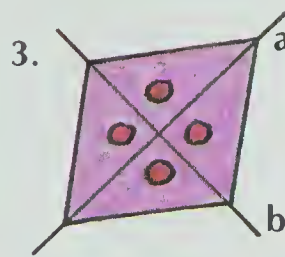
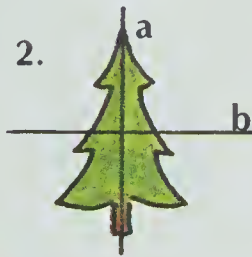
British Columbia



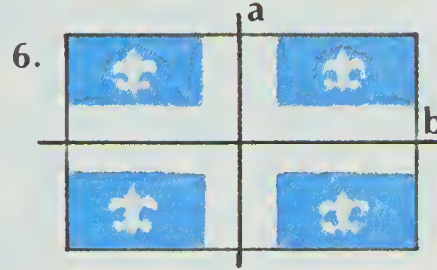
Ontario

PRACTICE

Record each line of symmetry.



Union Jack



Quebec

7. Draw a square 6 cm wide.
Find 4 lines of symmetry.

8. Draw a rectangle 3 cm wide and 5 cm long.
Show its lines of symmetry.

9. Fold a piece of paper. Then cut out shapes like these.



REVIEW

Find the difference.

1.
$$\begin{array}{r} 302 \\ - 175 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 207 \\ - 138 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 703 \\ - 68 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 604 \\ - 53 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 500 \\ - 45 \\ \hline \end{array}$$

6. \$6.35 and \$7.20

7. \$7.05 and \$2.98

8. \$4.56 and \$8.95

9. \$3.21 and \$8.00

TEST

UNIT 10

Subtract.

$$\begin{array}{r} 1. \quad 345 \\ - 119 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 621 \\ - 516 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 890 \\ - 807 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 654 \\ - 503 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 987 \\ - \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 642 \\ - 360 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 835 \\ - 275 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 206 \\ - 184 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 444 \\ - \quad 73 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 283 \\ - \quad 90 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 634 \\ - 287 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 222 \\ - 135 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 856 \\ - 487 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 483 \\ - \quad 97 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 710 \\ - \quad 29 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 302 \\ - 167 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 806 \\ - 758 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 507 \\ - 282 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 700 \\ - 278 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 200 \\ - \quad 35 \\ \hline \end{array}$$

Find the difference.

21. 335 and 911

22. 827 and 96

23. \$6.35 and \$3.59

24. \$0.76 and \$5.00

25. \$1.54 and \$6.29

26. \$2.47 and \$1.38

Solve. Show both steps.

27. 756 people live in a community.
377 are children.
195 are men.
How many are women?

ADDITION

Add.

$$\begin{array}{r} 1. \quad 7 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 6 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 40 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 6 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 65 \\ + 18 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 37 \\ + 29 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 856 \\ + 142 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 135 \\ + 245 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 564 \\ + 217 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 63 \\ + 62 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 80 \\ + 90 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 145 \\ + 582 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 240 \\ + 365 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 573 \\ + 43 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 76 \\ + 77 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 29 \\ + 71 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 368 \\ + 586 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 468 \\ + 468 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 242 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 7 \\ 8 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 38 \\ 43 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad 65 \\ 39 \\ + 49 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 183 \\ 281 \\ + 364 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 439 \\ 239 \\ + 238 \\ \hline \end{array}$$

Round to the nearest ten.

$$26. \quad 36$$

$$27. \quad 55$$

$$28. \quad 97$$

$$29. \quad 341$$

Estimate the sum.

$$30. \quad 32 + 49 \text{ is about } \blacksquare.$$

$$31. \quad 199 + 402 \text{ is about } \blacksquare.$$

Solve.

32. 14 dogs are in the ring
with 12 clowns and 17 monkeys.
How many animals are in the ring?

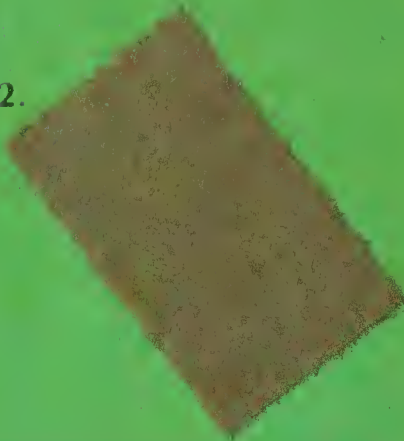
UNIT 11

GEOMETRY

1.



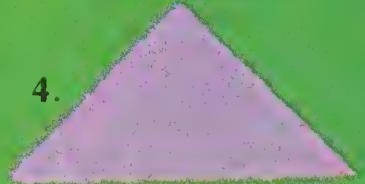
2.



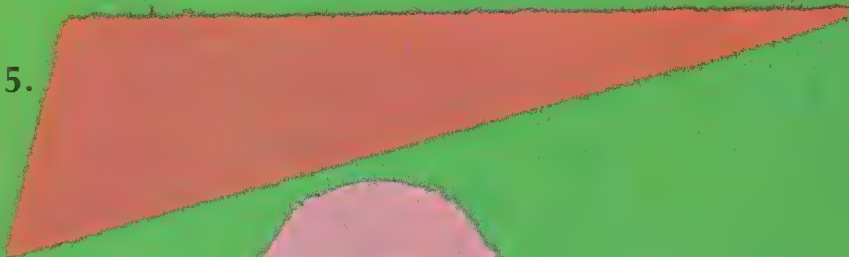
3.



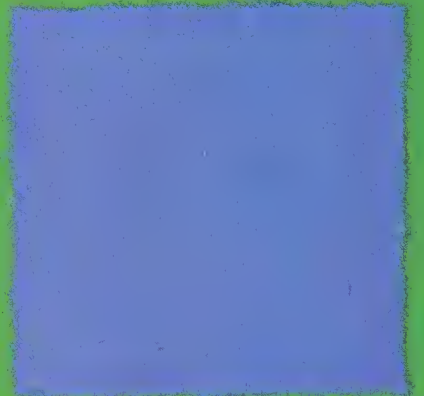
4.



5.



6.



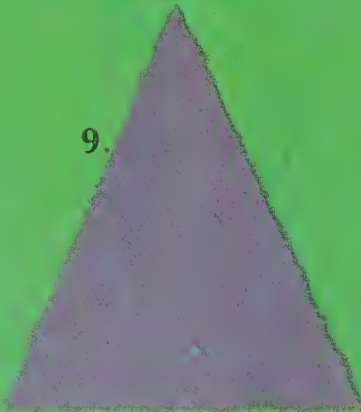
7.



8.



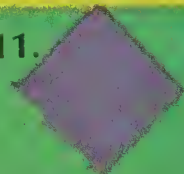
9.



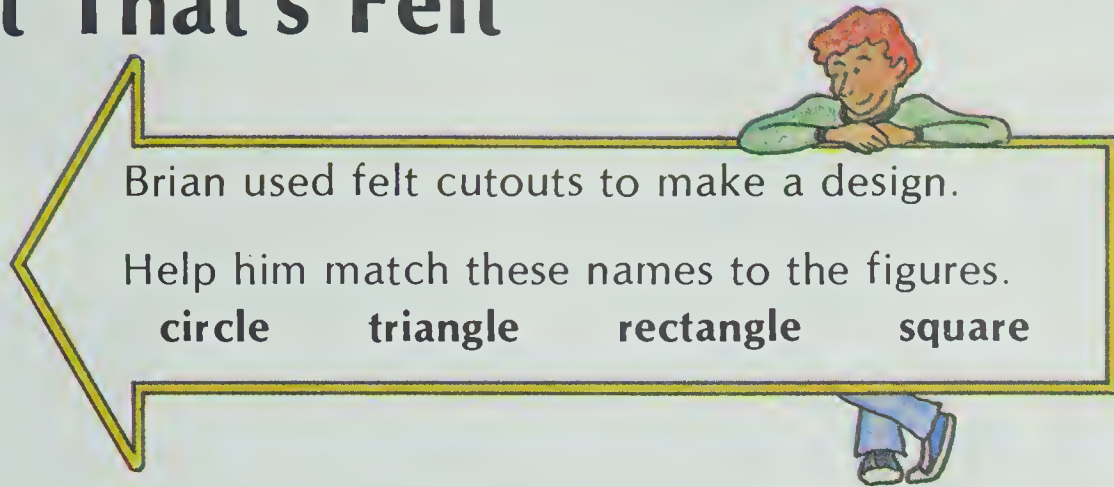
10.



11.

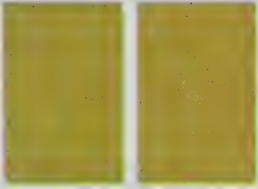


Art That's Felt



Shelley cut these figures into two parts.
Are the parts the same?

12.



13.



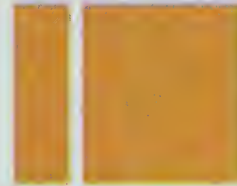
14.



15.



16.

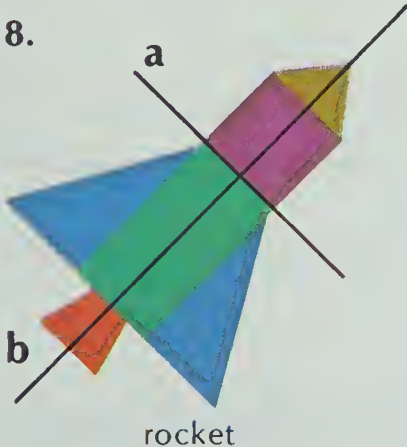


17.

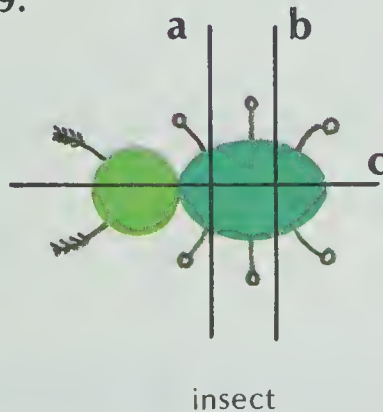


Mindy used her figures to make **symmetric** pictures.
Which are **lines of symmetry**?

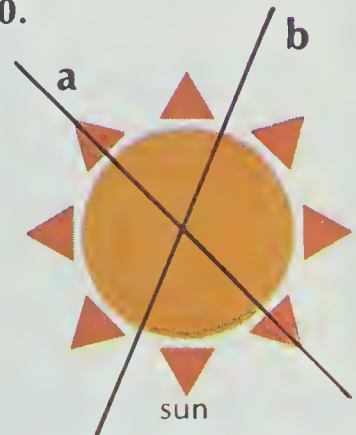
18.



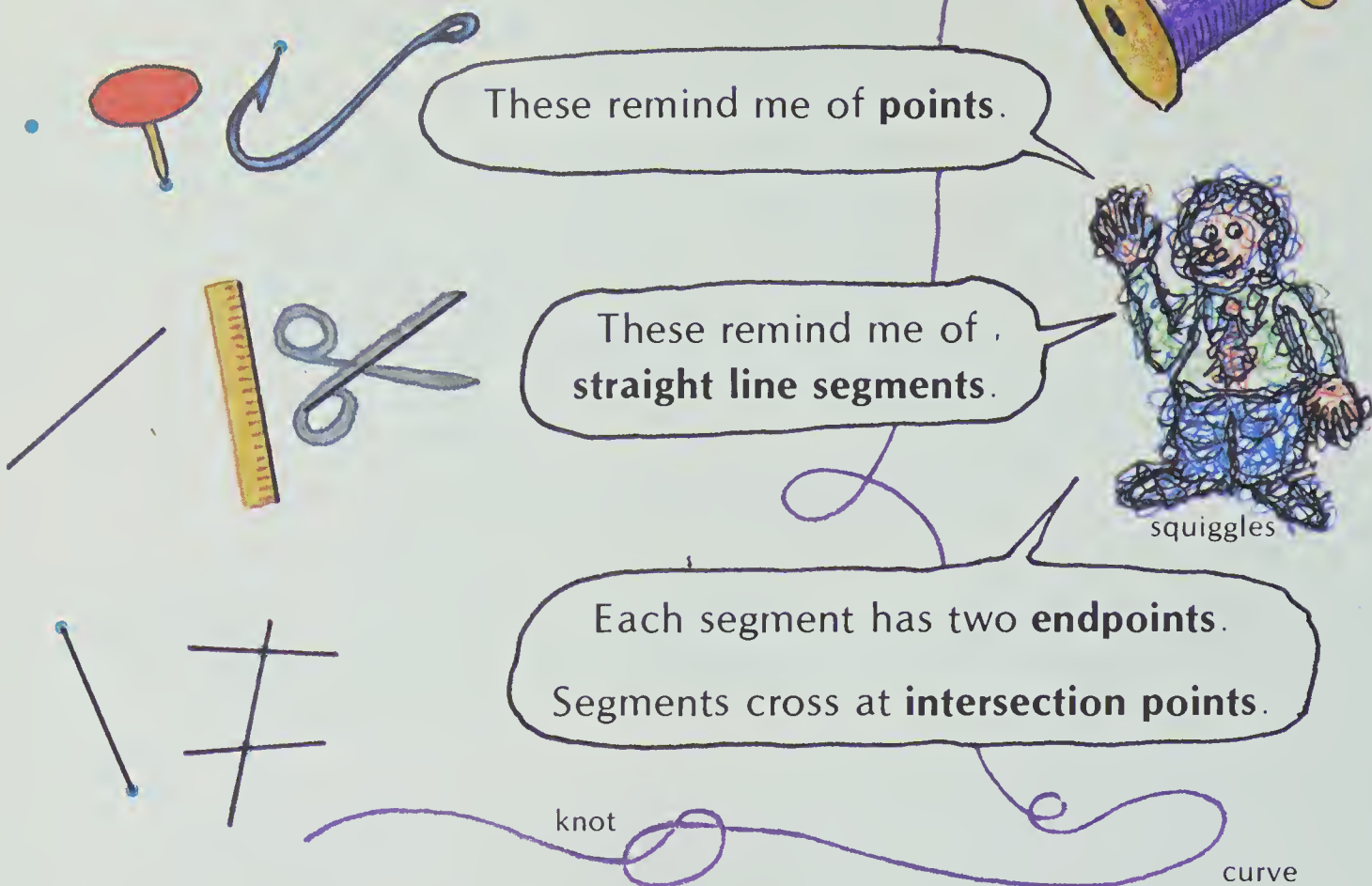
19.



20.



Points and Segments



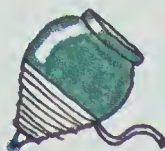
EXERCISES

Does it remind you of a point or a segment?

1.



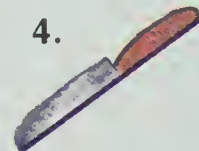
2.



3.



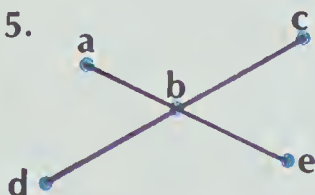
4.



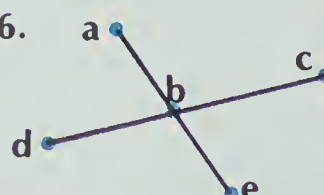
Which are endpoints?

Which are intersection points?

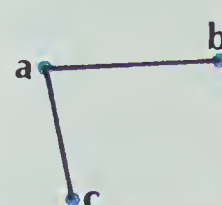
5.



6.



7.



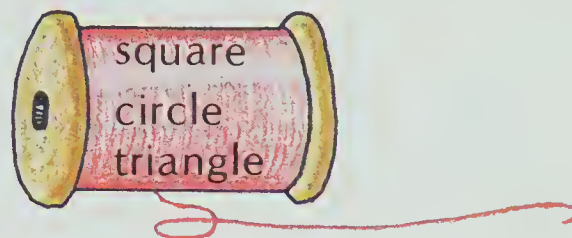
PRACTICE

Draw a picture for each. Use a ruler.

1. a straight line segment
2. a point
3. two endpoints
4. a curve
5. an intersection point
6. a knot
7. three segments sharing one intersection point
8. three segments sharing three endpoints

Match each with a figure.

9. 3 segments
10. 4 segments
11. a curve



A curve can be drawn through three points.
Can one straight segment be drawn through the three points?



14. Which is longer: the curve or the straight segment?

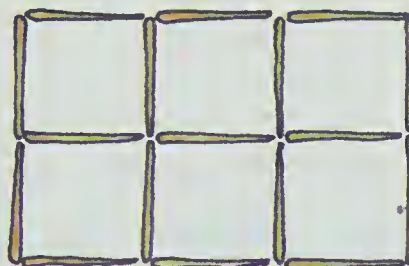


15. Try to print the alphabet using only this curve and straight line segments.



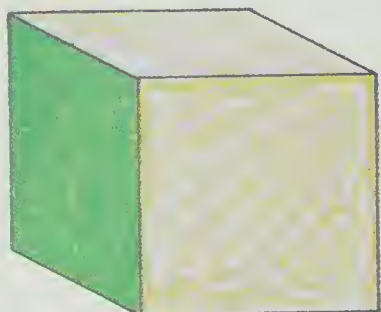
Missing Segments

If five are lost,
three squares are left.
Which segments are lost?



Solids

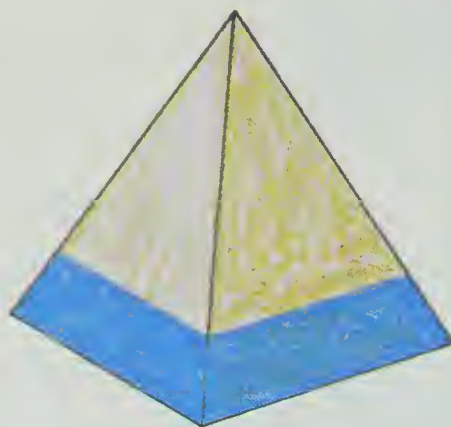
Martin enjoys painting on clay **solids**.



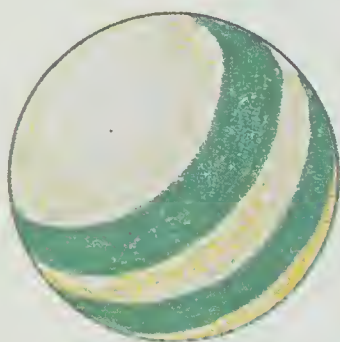
cube



cone



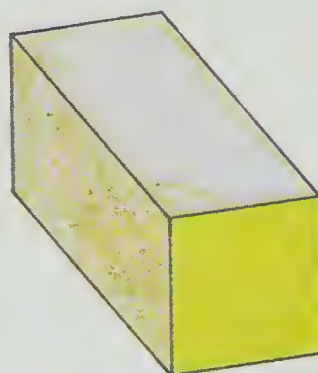
pyramid



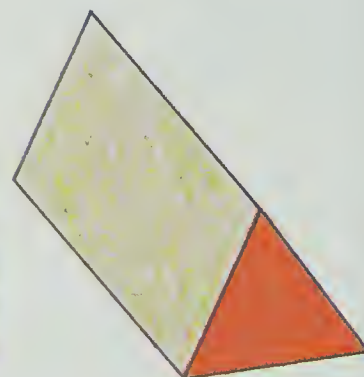
sphere
(ball)



cylinder
(can)



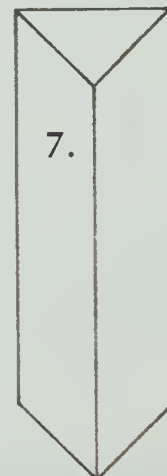
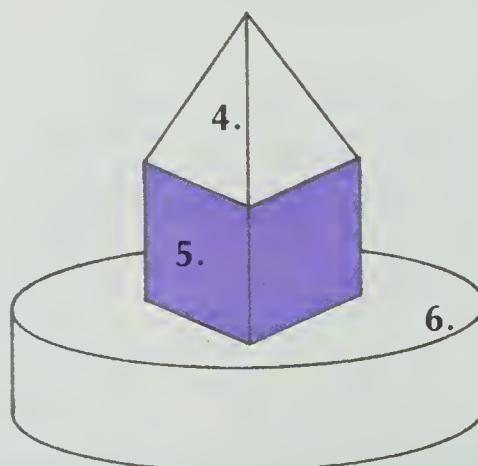
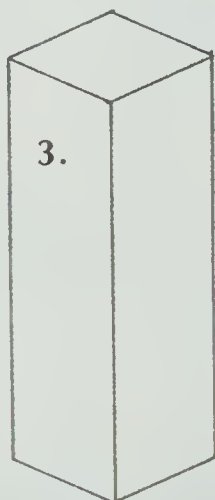
box
(rectangular prism)



prism
(triangular prism)

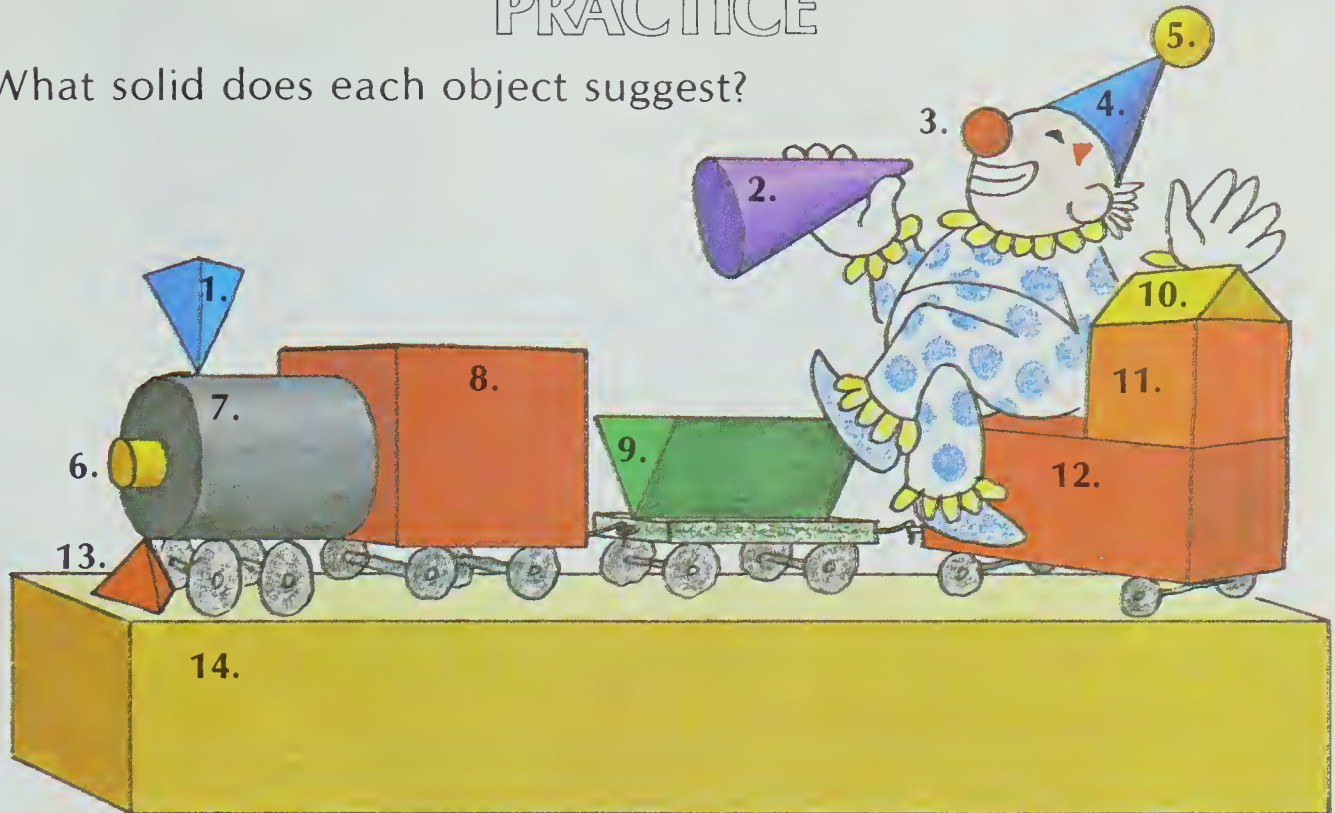
EXERCISES

Name each solid.



PRACTICE

What solid does each object suggest?



- | | | |
|--|----------------|-------------------|
| 15. orange | 16. book | 17. tent |
| 18. toy box | 19. sugar cube | 20. funnel |
| 21. tin can | 22. globe | 23. rainbow prism |
| 24. Which solids won't roll? | | |
| 25. Which solid rolls only in a circle? | | |

Castle Costs

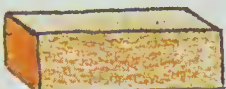
How much does the castle cost?



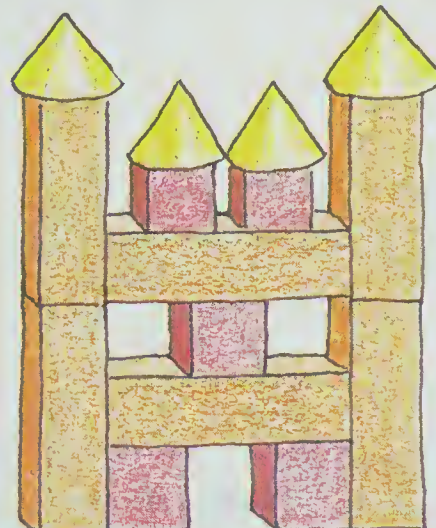
8¢ each



6¢ each



7¢ each



Hint! Multiply and add.

Faces

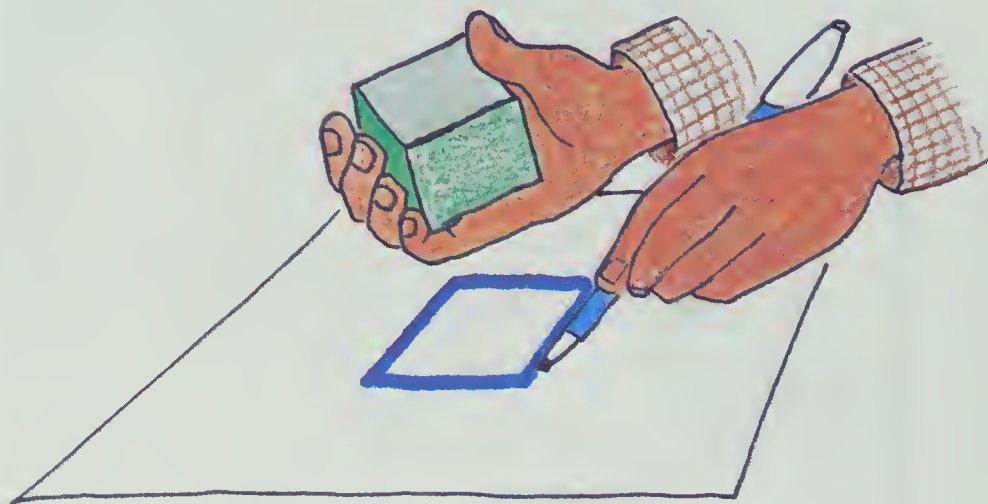
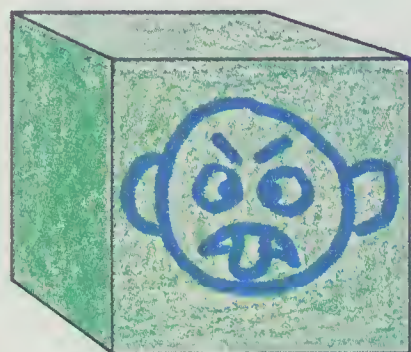
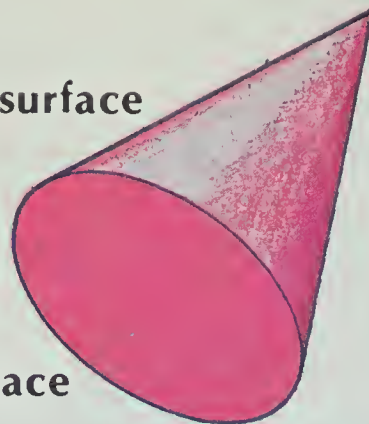
Solids have **surfaces**.

A flat surface is called a **face**.

You can draw a  on a face.
You can trace around faces.

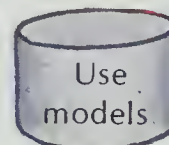
rounded surface

face

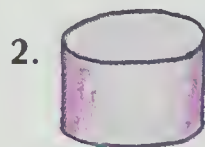


EXERCISES

How many faces does each solid have?



cube



cylinder



sphere



box



pyramid





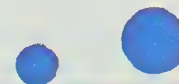







cone



prism

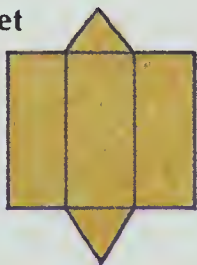
8. Name three solids with rounded surfaces.

PRACTICE

Solids	How many faces look like these?		
			
cube 	1.	2.	3.
pyramid 	4.	5.	6.
box 	7.	8.	9.
prism 	10.	11.	12.
cylinder 	13.	14.	15.
sphere 	16.	17.	18.
cone 	19.	20.	21.

smART and CRAFTy

a net



Fold.



a triangular prism

What will you get by folding? Guess and test.

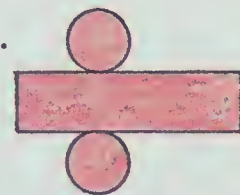
1.



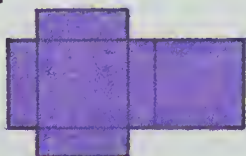
2.



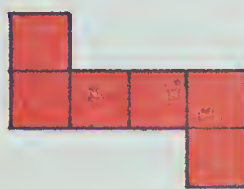
3.



4.



5.



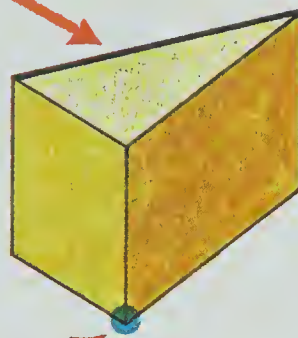
6.



Edges and Corners

Many solids have **edges**.

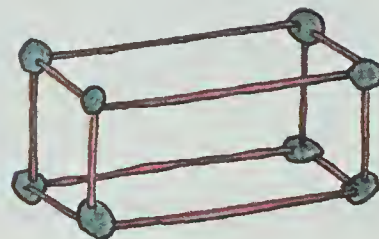
An **edge** can be a curve or a straight line segment.



Some solids have **corners**.

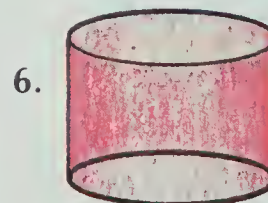
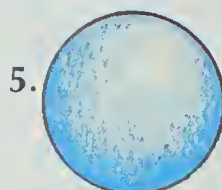
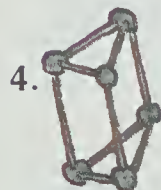
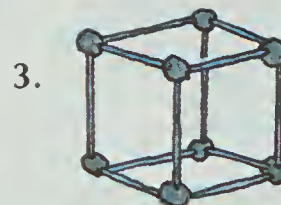
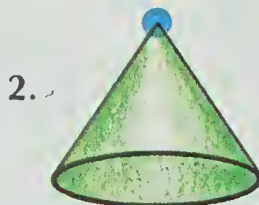
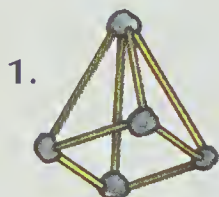
Corners are often at the endpoints of edges.

Skeletons of some solids can be made with straws and Plasticine.

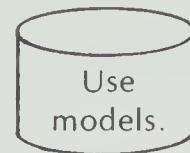


EXERCISES

How many edges and corners for each?



PRACTICE



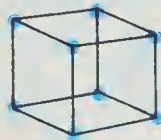

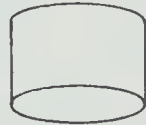
1. Copy and complete the table.

	curved edges	straight edges	corners
cube			
cone			
cylinder			
pyramid			

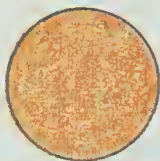
2. Which solid above has the most edges?
3. Which solid above has the fewest corners?
4. Which 4 skeletons can be made with straws and Plasticine?

REVIEW

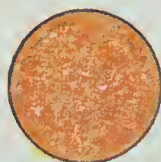
1. Draw a picture of a line segment and two endpoints.

				
G5	Name.	2.	3.	4.
G6	Number of faces.	5.	6.	7.
G7	Number of edges.	8.	9.	10.
	Number of corners.	11.	12.	13.

Same Size and Same Shape



same shape



same size
and shape



different



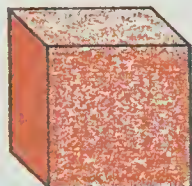
same shape



different



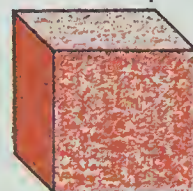
same size
and shape



different



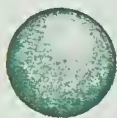
same shape



same size
and shape

EXERCISES

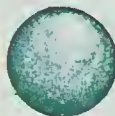
Write **different**, **same shape**, or **same size and shape**.



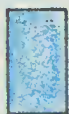
1.



2.



3.



4.



5.



6.



7.



8.



9.



10.



11.



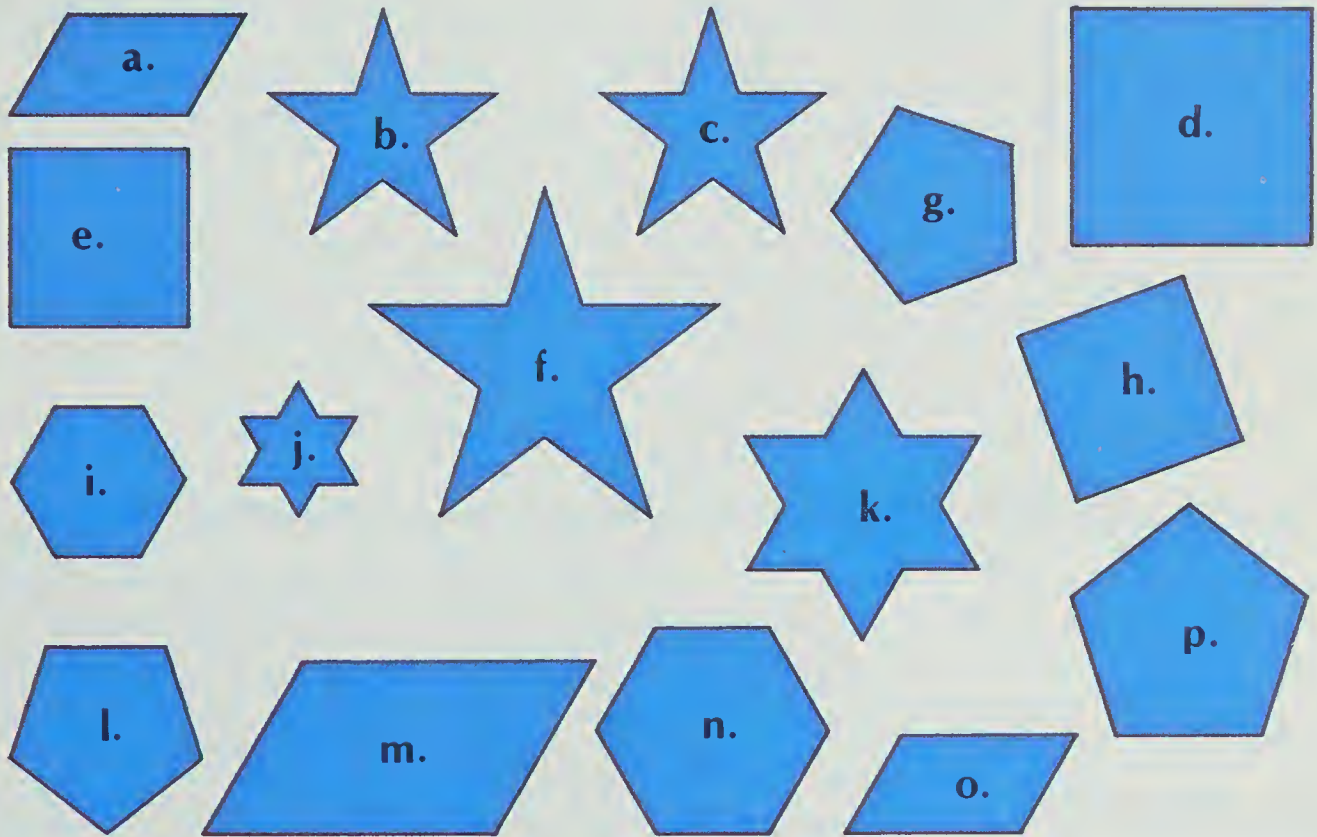
12.



PRACTICE

Write **different**, **same shape**, or **same size and shape**.

- | | | |
|-------------|-------------|-------------|
| 1. a and o | 2. b and f | 3. b and c |
| 4. e and h | 5. f and k | 6. o and h |
| 7. i and n | 8. g and p | 9. g and l |
| 10. j and k | 11. i and l | 12. m and o |



Try to Cover Me!

Can you **cover** the lizard with these objects?




- | | | |
|-------------|-------------|-------------|
| 1. checkers | 2. dominoes | 3. diamonds |
|-------------|-------------|-------------|



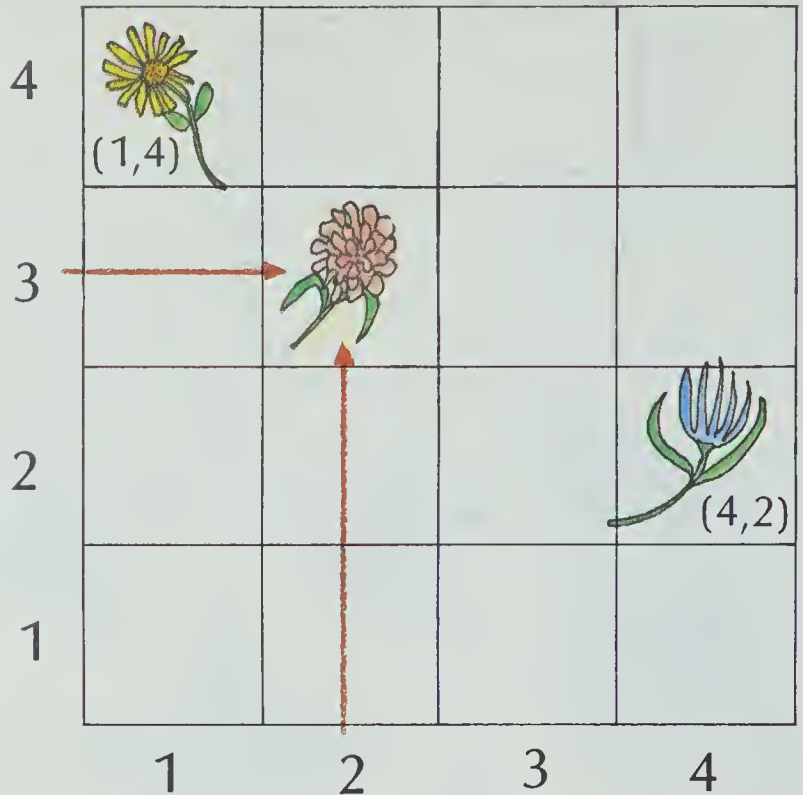
Rules: No objects overlap.
All of the lizard is hidden.

Grids

Renée is displaying her paper flowers.

The  is hooked
 2 and  3.

She names this square with the **pair** (2,3).



EXERCISES

Whose painting kit?

- | | | |
|----------|----------|---|
| 1. (2,1) | 2. (1,4) | 4 |
| 3. (1,2) | 4. (4,1) | |
| 5. (1,3) | 6. (4,3) | 3 |

Name the **pair**.

- | | |
|---------|---------|
| 7. Pam | 8. Joe |
| 9. Lil | 10. Sue |
| 11. Tim | 12. Leo |
| 13. Nan | 14. Tom |



PRACTICE

Who sits at the desk?

1. (3,5) 2. (2,4)
3. (1,2) 4. (1,3)
5. (4,2) 6. (3,3)

Name the pair.

7. Amos 8. Jim
9. Rick 10. Tom
11. Andy 12. Vera
13. John 14. Taro
15. The points in column 2.

5	Tom	Sue	Sara	Pete
4	Mike	Rick	Ruth	Taro
3	Nan	Jill	Art	Phil
2	Lil	Tim	Amos	John
1	Vera	Mary	Kate	Jim
	1	2	3	4

row

column

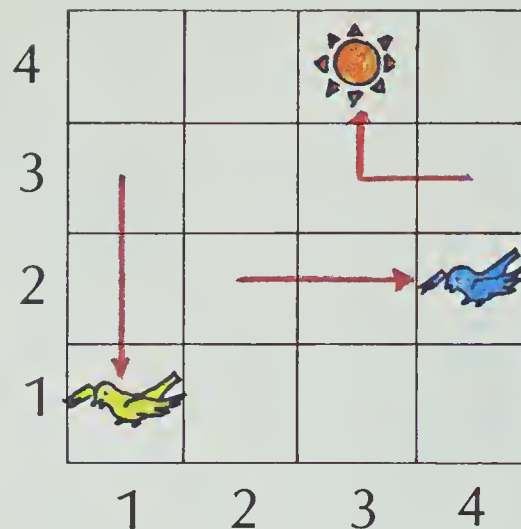
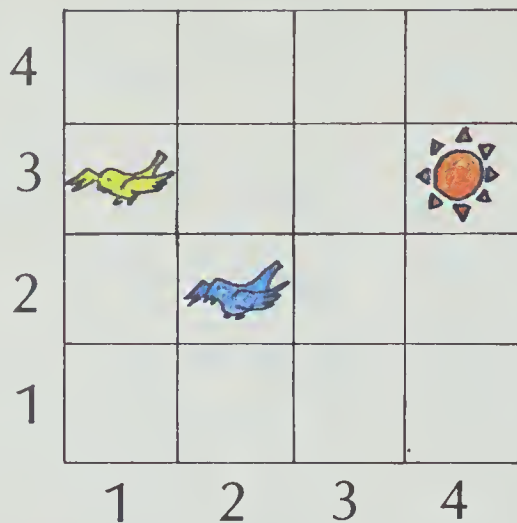
City Sites

Tell where you visit.

1. From **home** go east 1 block and north 2 blocks.
2. Then go west 2 blocks.
3. Next go south 3 blocks and west 2.
4. Then go north 1 block and east 3.
5. Write an interesting story about the *city sights*.



Slides on a Grid



Tina changed her grid-picture by sliding.

The  has moved **right 2** spaces to (4,2).

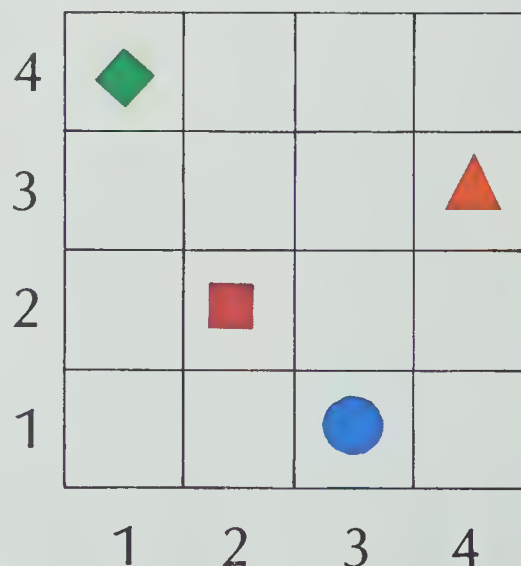
The  has moved **down 2** spaces to (1,1).

The sun slid **left 1** and **up 1**.

EXERCISES





Where is it after the slide?


1. Slide  **up 3**.
2. Slide  **right 1**.
3. Slide  **left 3**.
4. Slide  **down 2**.
5. Slide  **right 1** and **up 1**.
6. Slide  **left 1** and **up 1**.
7. Slide  **left 1** and **down 1**.
8. Slide  **right 1** and **down 1**.





PRACTICE


Where is the bird after the slide?

1.  moved **down 1**.
2.  moved **left 2**.
3.  **right 1** and **up 1**.
4.  **left 3** and **down 3**.
5. Redraw the grid-picture with these changes.

 **left 2**

 **up 2**

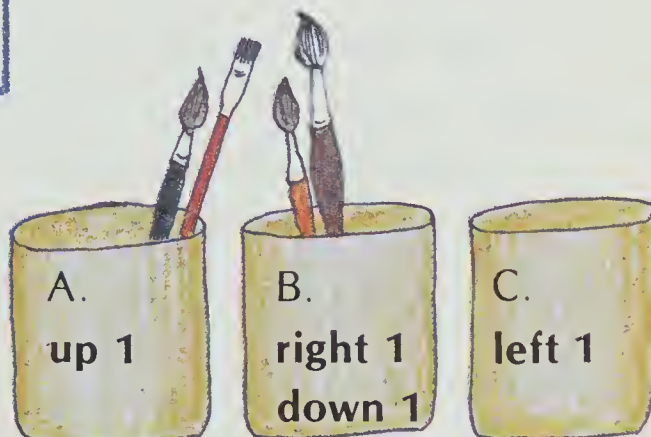
 **right 1** and **down 1**

 **right 2** and **up 1**



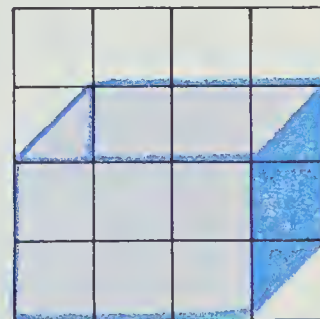
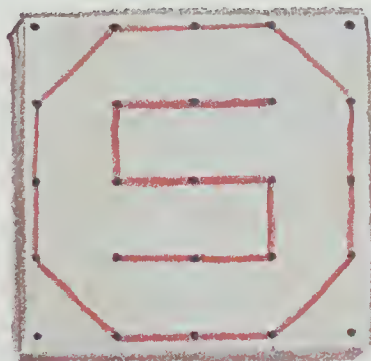
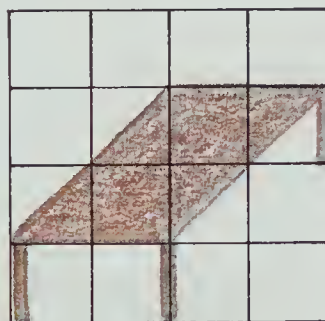
What kind of slide? Match.

6. Move from (3,3) to (2,3).
7. Move from (3,3) to (3,4).
8. Move from (3,3) to (4,2).



Making EnLARGEments

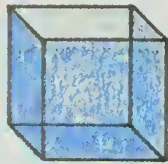
Copy each picture on a larger grid.



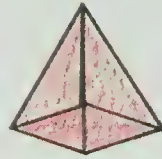
Sorting



cone



cube



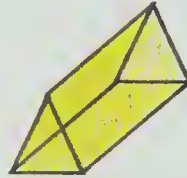
pyramid



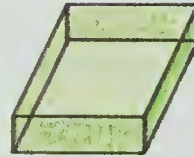
sphere



cylinder



prism



box

1. Triangle faces
Five corners
Who am I?
2. Rolls straight
Two faces
Who am I?
3. Eight corners
A special box
Who am I?
4. One round surface
One curved edge
Who am I?
5. No edges
No corners
Who am I?
6. Five faces
Looks like a tent
Who am I?
7. List the solids that have curved edges.
8. List the solids that have from 2 to 5 faces.
9. Which solid is in both lists?
10. Which solids are in neither list?



Geometry Report

Make a report for each shape.



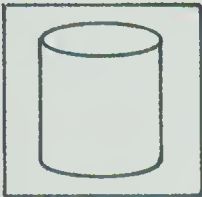
Ideas

- Count the number of sides.
- Find several lines of symmetry.
- Try to **cover** a page with each.
- Which have you seen before? Where?

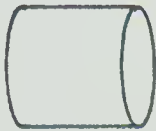
REVIEW

Write **different**, **same shape**, or **same size and shape**.

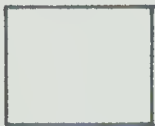
GR 8



1.



2.



3.





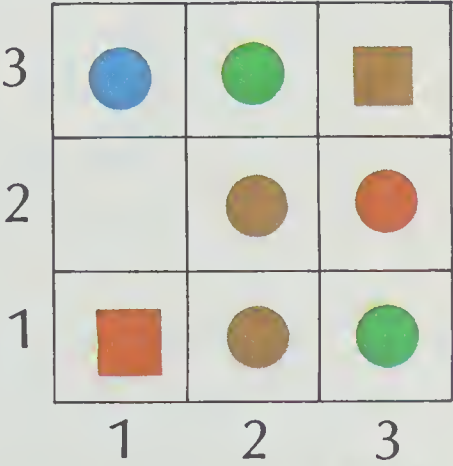
GR 2

- 4. Name the blue dot.
- 5. What colour is (3,2)?

Name the new pair.

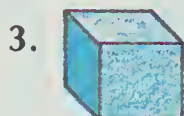
GR 9

- 6. Slide  **right 2**.
- 7. Slide  **left 2** and **down 1**.

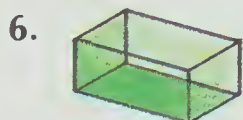


1. Draw two line segments that intersect.

Name the solid.



Count the faces.



How many **edges**? How many **corners**?

9. box

10. cylinder

11. sphere

Write **different**, **same shape**, or **same size and shape**.



15. What figure is at (3,1)?

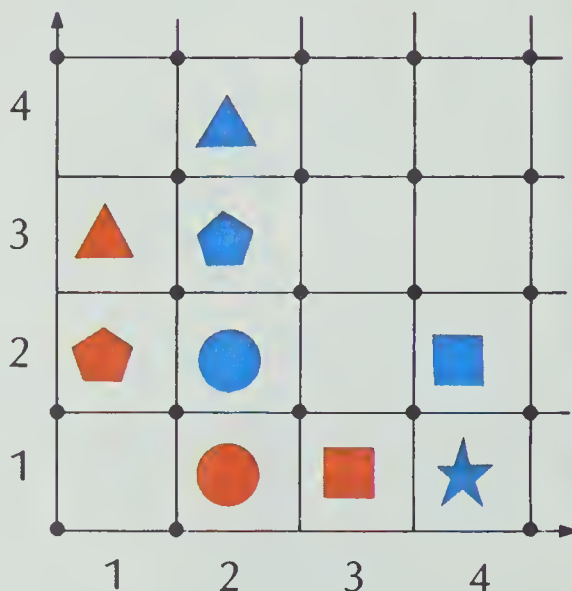
16. What figure is at (1,3)?

17. Where is ?

18. Where is ?


19. Slide **up 3**. Where is it now?

20. Slide **left 3** and **up 2**. Where is it?






PROBLEM SOLVING

Solve.

1. 524 
393 like art.
How many do not?

2. 42 crayons
7 
How many for each ?



3. 335 
186 
How many in all?

4. 8 paint cans
7  in each can.
How many brushes in all?

5. 95 paint cans
279 paint brushes
54 math books
How many for painting?

6. 375 crayons in a box
66 taken by teachers.
192 taken by students.
How many are left?

PAINTING

A class of 30 children painted solids.
The painting began at 10:20. The children
painted 168  and 83 .

Five children each used 3 cans of water. Everyone else
used 1 can each. The painting time lasted 30 minutes.



7. How many solids were painted?
8. How many cans of water did the 5 children use in all?
9. How many students painted?
10. At what time was the painting done?
11. How many cans of water were used by the class?

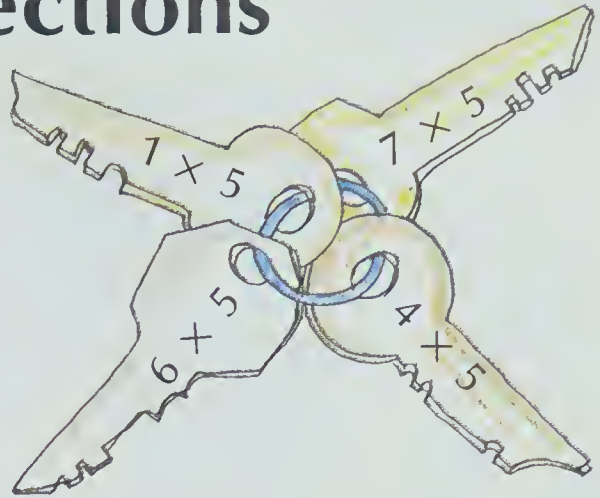
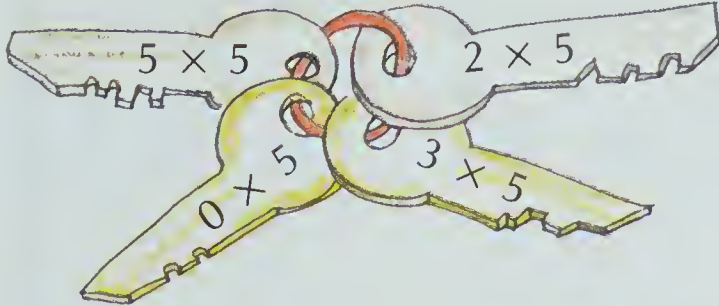
UNIT 12

MULTIPLICATION FACTS II

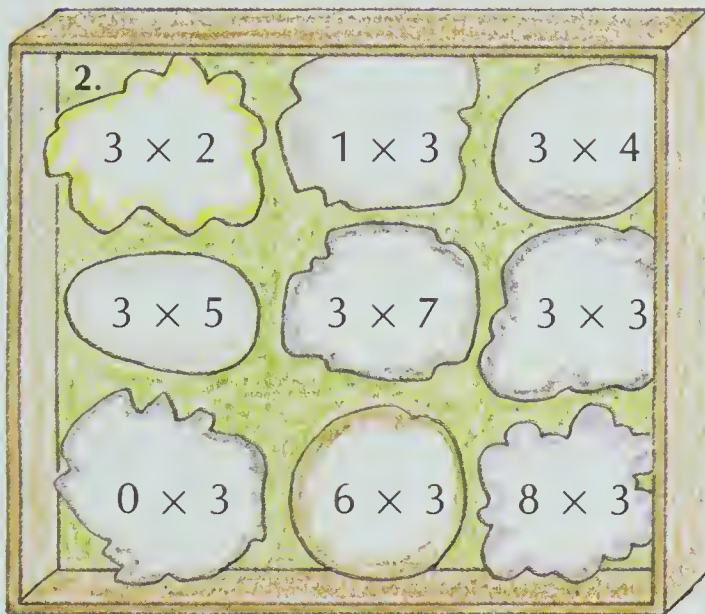


Multiply the Collections

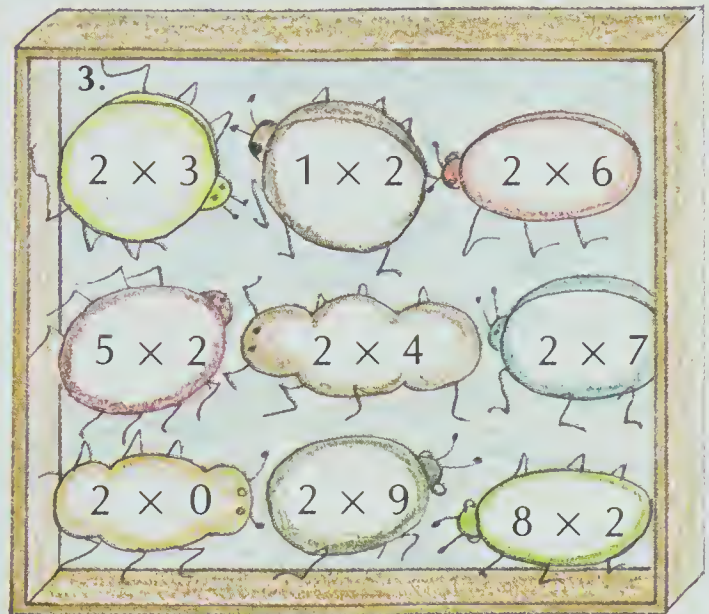
1.



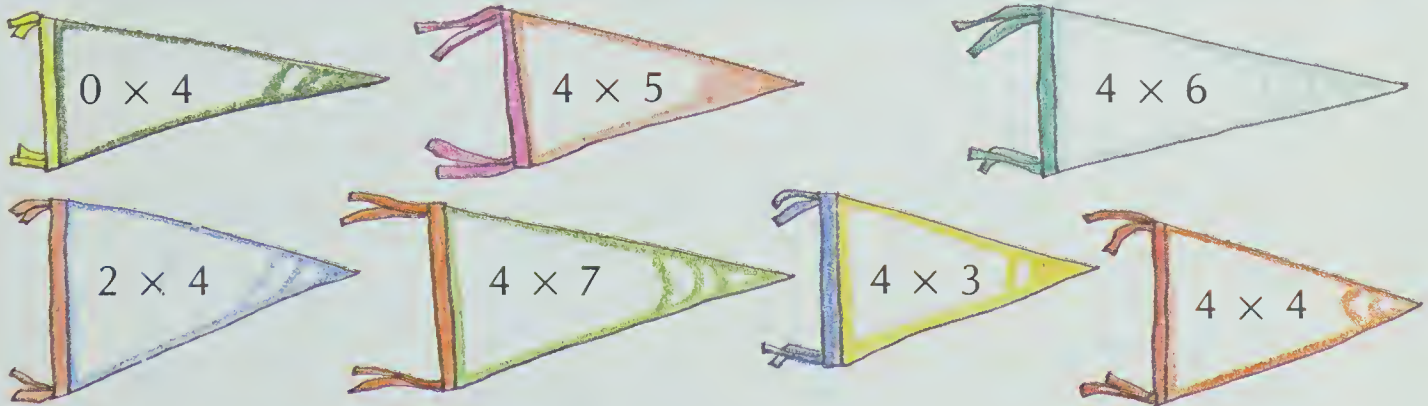
2.



3.



4.

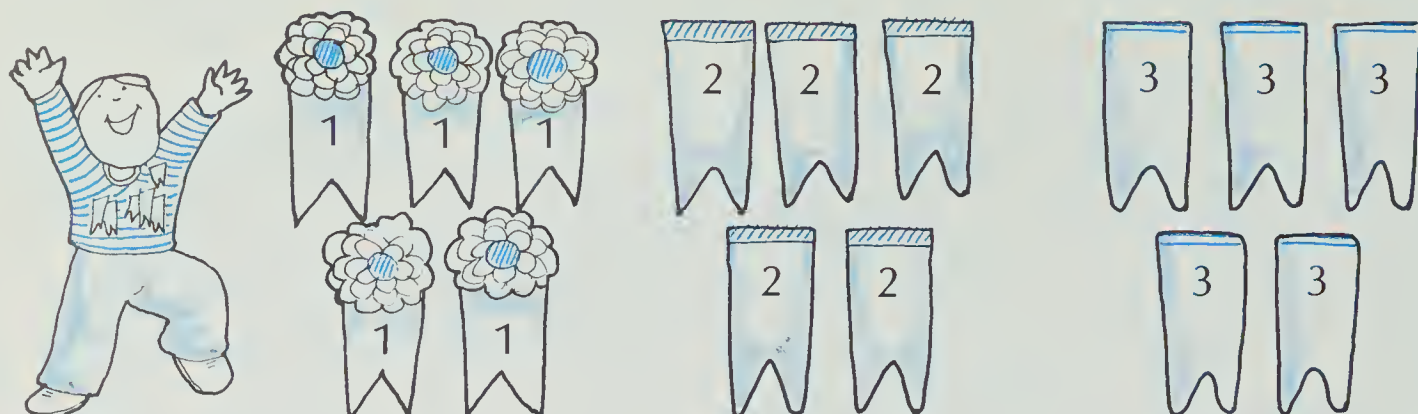


Challenge!

Add the products in each collection.
Which two collections have the same sum?

Another Way to Multiply

Find how many ribbons Craig won.



Craig won 3 groups of 5 ribbons.

There are two ways to write 3 times 5.

$$3 \times 5 = 15$$

Read across.

$$\begin{array}{r} 5 \\ \times 3 \\ \hline 15 \end{array}$$

Read up.

The **product** is 15.

Craig won 15 ribbons in all.

EXERCISES

Multiply.

1. 2×3

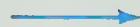


2. 3×2

$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$



3. 3×4



4. 4×3

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$



5. 4×5



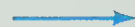
4 rows of 5

6. 5×4

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$



7. 3×7



3 rows of 7

8. 7×3

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$



PRACTICE

Multiply.

1. 3×0

2.
$$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$$

3. 4×4

4.
$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

5. 2×8

6.
$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

7. 1×5

8.
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

Complete each multiplication question.

13. $\blacksquare \times 8 = 32$

14.
$$\begin{array}{r} 8 \\ \times \blacksquare \\ \hline 32 \end{array}$$

15. $\blacksquare \times 3 = 24$

16.
$$\begin{array}{r} 3 \\ \times \blacksquare \\ \hline 24 \end{array}$$

17. $5 \times \blacksquare = 30$

18.
$$\begin{array}{r} \blacksquare \\ \times 5 \\ \hline 30 \end{array}$$

19. $4 \times \blacksquare = 36$

20.
$$\begin{array}{r} \blacksquare \\ \times 4 \\ \hline 36 \end{array}$$

Winning Times

Match each problem with the correct multiplication.
Find how many ribbons were won in each problem.

1. 2 students won 5  each.

2. 1 student won 2  each.

3. 3 students won 4  each.

4. 4 students won 2  each.

$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

Six

How many hockey cards has Bill collected?



→ 5 sevens = 35

and +

→ 1 seven = 7

6 sevens = 42

$6 \times 7 = 42$

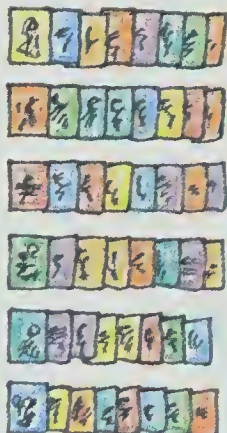
$$\begin{array}{r} 7 \\ \times 6 \\ \hline 42 \end{array}$$

Bill has collected 42 cards in all.

EXERCISES

Multiply.

1. 6×8



6 eights

2. 8×6

3. 6×9



6 nines

4. 9×6

5. Draw 6 groups of 6 cards.
How many cards in all?

6. Draw 6 groups of 5 cards.
How many cards in all?

PRACTICE

Copy and complete the equations.

1. $0 \times 6 = 0$

2. $1 \times 6 = \blacksquare$

3. $2 \times 6 = \blacksquare$

$6 \times 0 = \blacksquare$

$6 \times 1 = \blacksquare$

$6 \times 2 = \blacksquare$

Multiply.

4. $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$

5. $\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$

6. $\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$

7. $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$

8. $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$

9. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$

Copy and complete the equations.

10.

5 sixes = \blacksquare

1 six = \blacksquare

6 sixes = \blacksquare

$6 \times 6 = \blacksquare$

11.

5 sevens = \blacksquare

1 seven = \blacksquare

6 sevens = \blacksquare

$6 \times 7 = \blacksquare$

$7 \times 6 = \blacksquare$

12.

5 eights = \blacksquare

1 eight = \blacksquare

$6 \times 8 = \blacksquare$

$8 \times 6 = \blacksquare$

13.

5 nines = \blacksquare

1 nine = \blacksquare

$6 \times 9 = \blacksquare$

$9 \times 6 = \blacksquare$

Multiply.

14. $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$

15. $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$

16. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$

17. $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$

18. $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$

19. $\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$

What Can She Wear?

Hint! Make a chart.

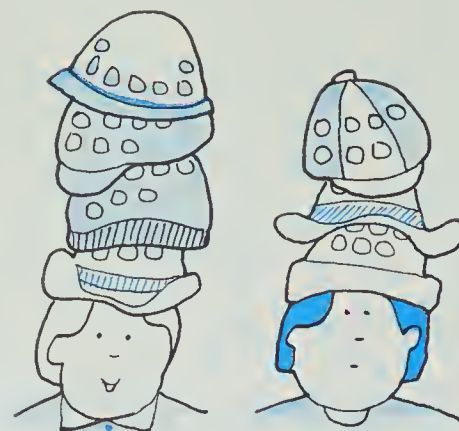
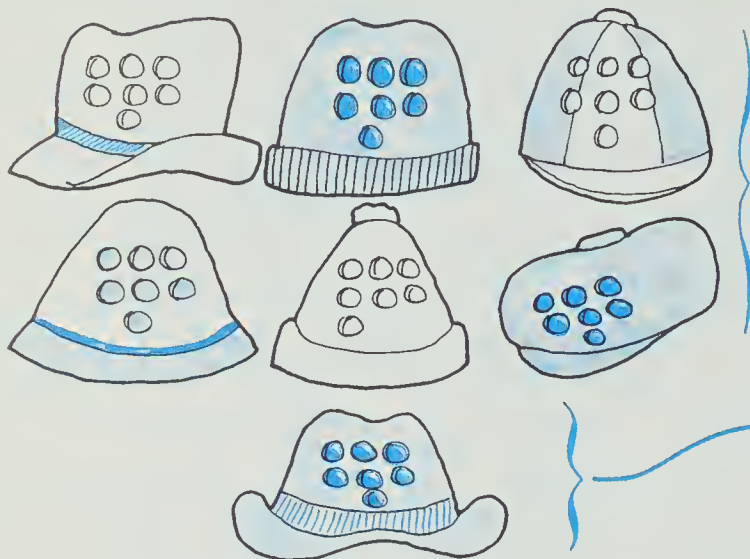
Pat has 6 different-coloured pairs of pants
and 5 different-coloured tops.

How many different outfits can Pat choose?



Seven

Jackie has 6 hats with 7 pins on each.
Robbie has 1 hat with 7 pins on it.
How many pins do they have altogether?



6 sevens = 42

and +

1 seven = 7

7 sevens = 49

$7 \times 7 = 49$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline 49 \end{array}$$

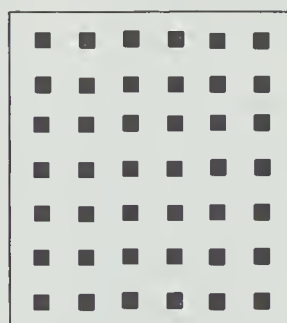
They have 49 pins altogether.

EXERCISES

Multiply.

1. 7×6

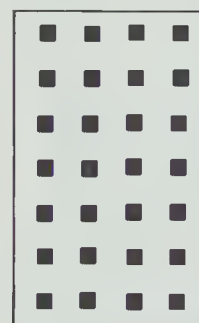
2. $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$



7 sixes

3. 7×4

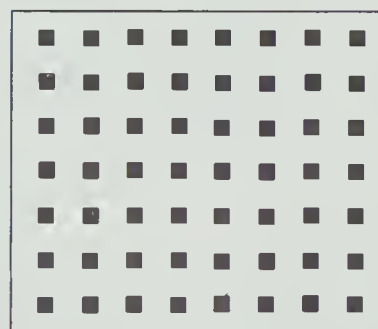
4. $\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$



7 fours

5. 7×8

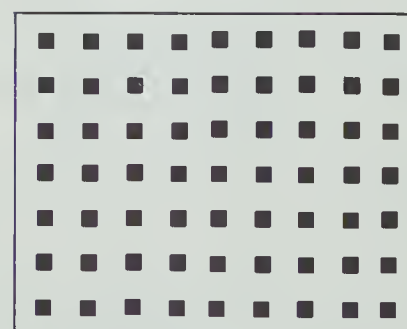
6. $\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$



7 eights

7. 7×9

8. $\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$



7 nines

PRACTICE

Copy and complete the equations.

1. $0 \times 7 = 0$

$7 \times 0 = \blacksquare$

2. $1 \times 7 = \blacksquare$

$7 \times 1 = \blacksquare$

3. $2 \times 7 = \blacksquare$

$7 \times 2 = \blacksquare$

Multiply.

4.
$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

Copy and complete the equations.

10.

6 sixes = \blacksquare

1 six = \blacksquare

7 sixes = \blacksquare

$7 \times 6 = \blacksquare$

$6 \times 7 = \blacksquare$

11.

6 eights = \blacksquare

1 eight = \blacksquare

7 eights = \blacksquare

$7 \times 8 = \blacksquare$

$8 \times 7 = \blacksquare$

12.

6 sevens = \blacksquare

1 seven = \blacksquare

$7 \times 7 = \blacksquare$

13.

6 nines = \blacksquare

1 nine = \blacksquare

$7 \times 9 = \blacksquare$

$9 \times 7 = \blacksquare$

Copy and complete each table.

14.

\times	8	6	9	7	4
6					

15.

\times	5	2	9	6	3	8	4
7							

16. How can ...5678 help you remember 7×8 ?

Button Button

How many buttons in all?



7 buttons on a card

8 cards



8 buttons on a card

7 cards

Pictographs

How many cars do Ellen and Bob really have?



stands for 5 model cars.



Ellen



Bob



Ellen has 6×5 or 30 model cars.

Bob has 3×5 or 15 model cars.

EXERCISES

Answer each question below in a sentence.



stands for 2 gold charms.

Lisa



Chris



1. How many charms does Chris have?
2. How many charms does Lisa have?
3. Who has more charms?

PRACTICE

Margo



Judy



Corry



Suppose  stands for 2 shells. How many does each have?

1. Corry
2. Margo
3. Judy

If  stands for 5 shells, how many does each have?

4. Judy
5. Corry
6. Margo

Suppose  stands for 10 shells. How many does each have?

7. Margo
8. Judy
9. Corry
10. Who has the most shells?
11. Who has the fewest shells?

REVIEW

Multiply.

A45

1. 3×6

2. $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$

3. 6×1

4. $\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$

5. 4×9

6. $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$

A46

7. $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$

8. $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$

9. $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$

10. $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$

11. $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$

12. $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$

A47

13. $\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$

14. $\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$

15. $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$

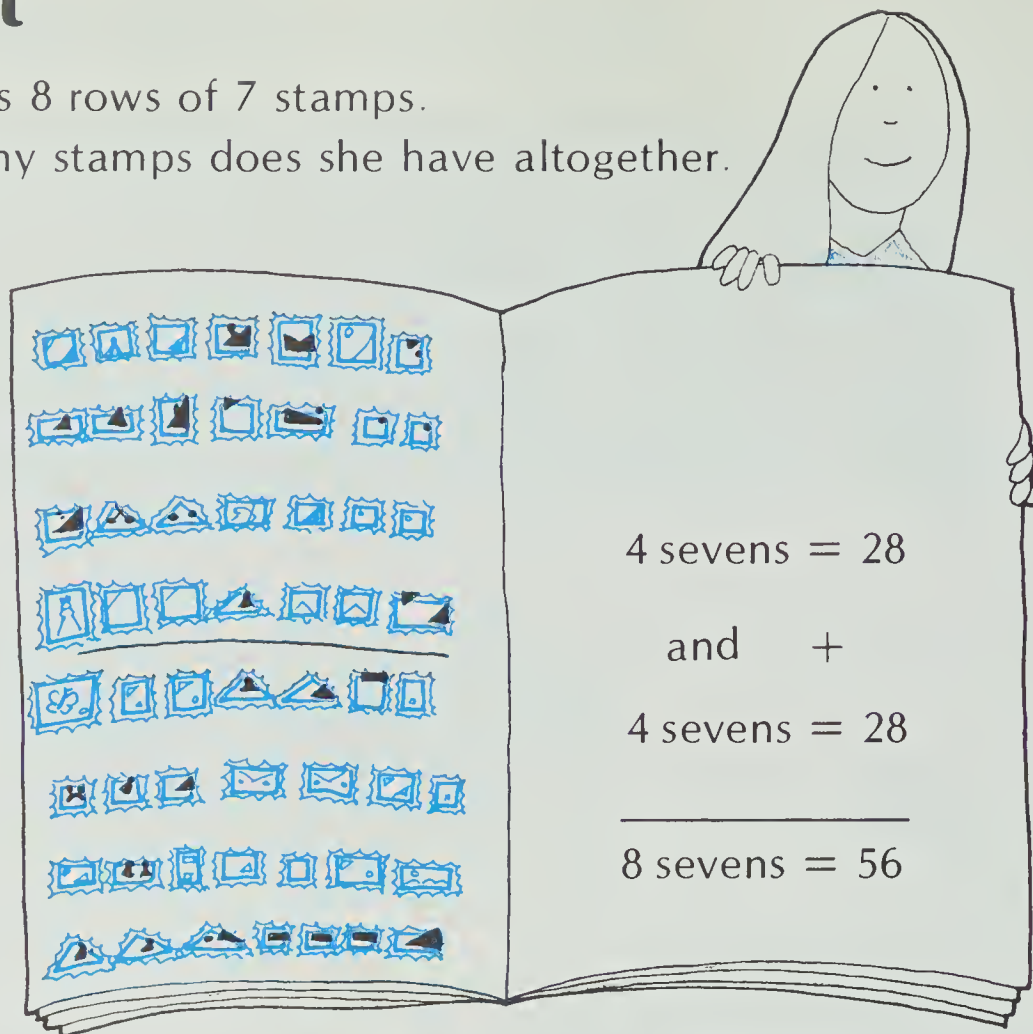
16. $\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$

17. $\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$

18. $\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$

Eight

Jenny has 8 rows of 7 stamps.
How many stamps does she have altogether.



$$8 \times 7 = 56$$

Jenny has 56 stamps in all.

$$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$$

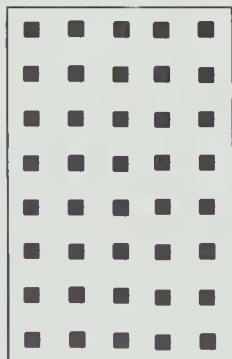
EXERCISES

Multiply.

1. 8×5



2. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$

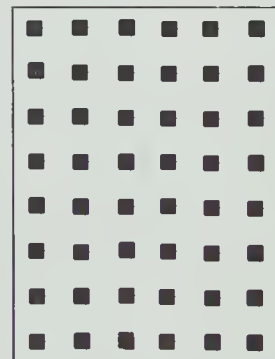
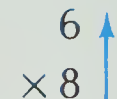


8 fives

3. 8×6



4. $\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$



8 sixes

5. Draw 8 rows of 8 stamps.
How many stamps in all?

6. Draw 8 rows of 9 stamps.
How many stamps in all?

PRACTICE

Copy and complete the equations.

1. $0 \times 8 = \blacksquare$

2. $1 \times 8 = \blacksquare$

3. $2 \times 8 = \blacksquare$

$8 \times 0 = \blacksquare$

$8 \times 1 = \blacksquare$

$8 \times 2 = \blacksquare$

Multiply.

4. $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$

5. $\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$

6. $\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$

7. $\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$

8. $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$

9. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$

Copy and complete the equations.

10. $\begin{array}{l} 4 \text{ sixes} = \blacksquare \\ 4 \text{ sixes} = \blacksquare \end{array}$

11. $\begin{array}{l} 4 \text{ sevens} = \blacksquare \\ 4 \text{ sevens} = \blacksquare \end{array}$

$8 \text{ sixes} = \blacksquare$

$8 \text{ sevens} = \blacksquare$

$8 \times 6 = \blacksquare$

$8 \times 7 = \blacksquare$

$6 \times 8 = \blacksquare$

$7 \times 8 = \blacksquare$

12. $\begin{array}{l} 4 \text{ eights} = \blacksquare \\ 4 \text{ eights} = \blacksquare \end{array}$

13. $\begin{array}{l} 4 \text{ nines} = \blacksquare \\ 4 \text{ nines} = \blacksquare \end{array}$

$8 \times 8 = \blacksquare$

$8 \times 9 = \blacksquare$

$9 \times 8 = \blacksquare$

Multiply.

14. $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$

15. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$

16. $\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$

17. $\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$

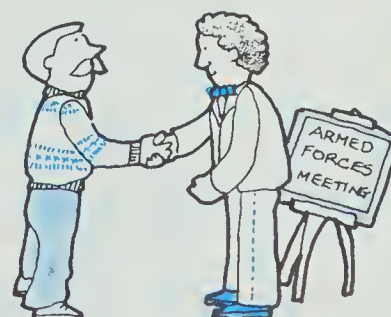
18. $\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$

19. $\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$

Worth 1000 Words

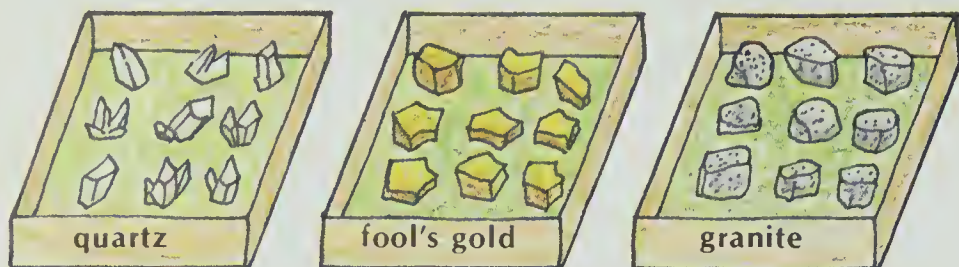
Five grownups shake hands with each other. How many handshakes are needed in all?

Draw a picture to help you.



Nine

How many rocks does Susan have in her collection?



$$9 \times 9 = 81$$

Susan has 81 rocks in her collection.

$$8 \text{ nines} = 72$$

and +

$$1 \text{ nine} = 9$$

$$9 \text{ nines} = 81$$

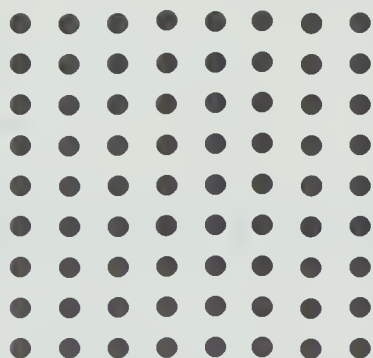
$$\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$$

EXERCISES

Multiply.

1. 9×8

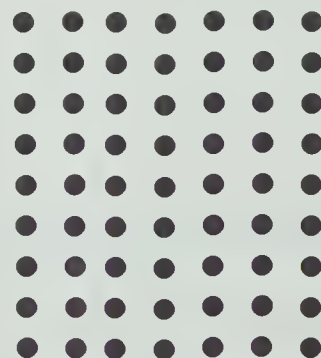
2. $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$



9 eights

3. 9×7

4. $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$



9 sevens

5. Draw 9 rows of 6 ●'s.
How many ●'s in all?

6. Draw 9 rows of 5 ●'s.
How many ●'s in all?

PRACTICE

Copy and complete the equations.

1. $0 \times 9 = 0$

$9 \times 0 = \blacksquare$

2. $1 \times 9 = \blacksquare$

$9 \times 1 = \blacksquare$

3. $2 \times 9 = \blacksquare$

$9 \times 2 = \blacksquare$

Multiply.

4.
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

Copy and complete the equations.

10.
$$\begin{array}{l} 8 \text{ sixes} = \blacksquare \\ 1 \text{ six} = \blacksquare \end{array}$$

$9 \text{ sixes} = \blacksquare$

$9 \times 6 = \blacksquare$

$6 \times 9 = \blacksquare$

11.
$$\begin{array}{l} 8 \text{ sevens} = \blacksquare \\ 1 \text{ seven} = \blacksquare \end{array}$$

$9 \text{ sevens} = \blacksquare$

$9 \times 7 = \blacksquare$

$7 \times 9 = \blacksquare$

12.
$$\begin{array}{l} 8 \text{ eights} = \blacksquare \\ 1 \text{ eight} = \blacksquare \end{array}$$

$9 \times 8 = \blacksquare$

$8 \times 9 = \blacksquare$

13.
$$\begin{array}{l} 8 \text{ nines} = \blacksquare \\ 1 \text{ nine} = \blacksquare \end{array}$$

$9 \times 9 = \blacksquare$

Multiply.

14.
$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

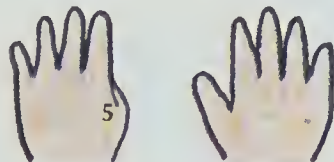
19.
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

Collecting Finger Patterns

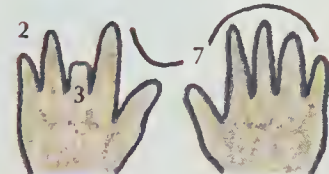
1. $\blacksquare \times 9 = \blacksquare\blacksquare$



2. $\blacksquare \times 9 = \blacksquare\blacksquare$



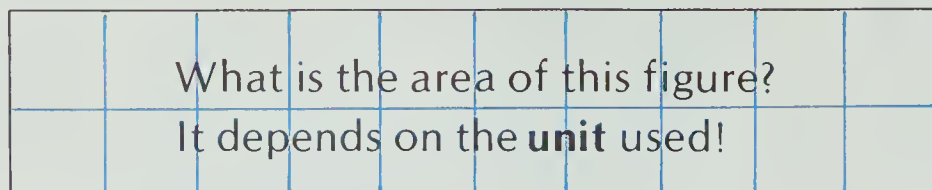
$3 \times 9 = 27$



3. Do Questions 14-18 above using finger patterns.

Area

Area is the measure of the space inside a figure.



It takes 10

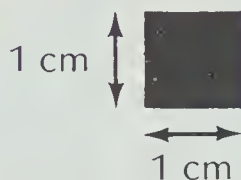


to cover the figure.

It takes 5



to cover the figure.

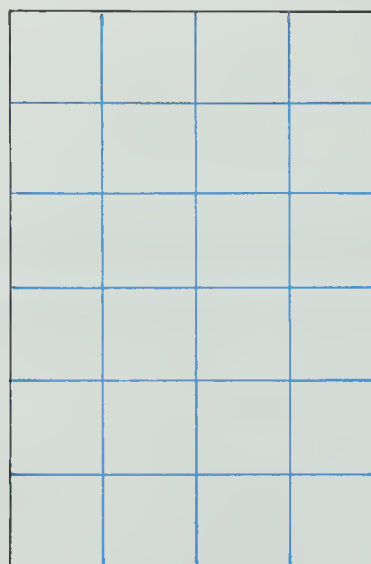


one square centimetre

It takes 20 square centimetres.

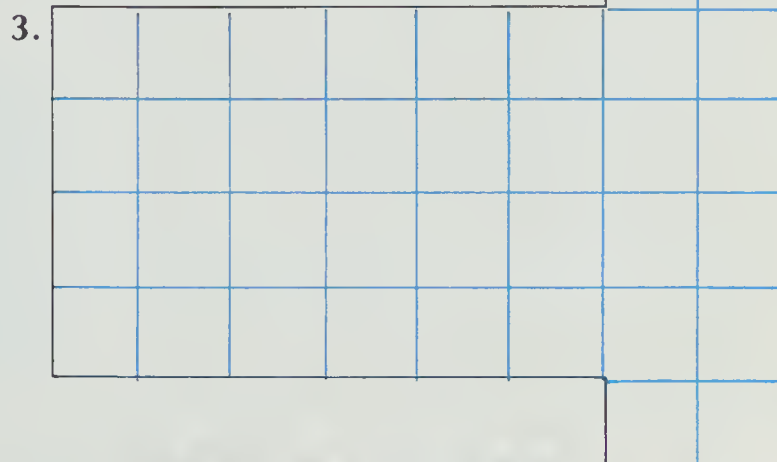
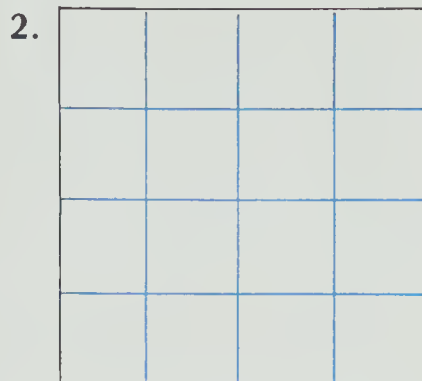
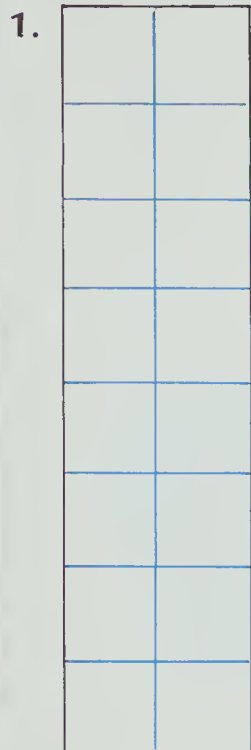
EXERCISES

1. How many bird stamps are needed to cover the figure?
2. How many fish stamps are needed to cover the figure?
3. What is the area of the figure in square centimetres?



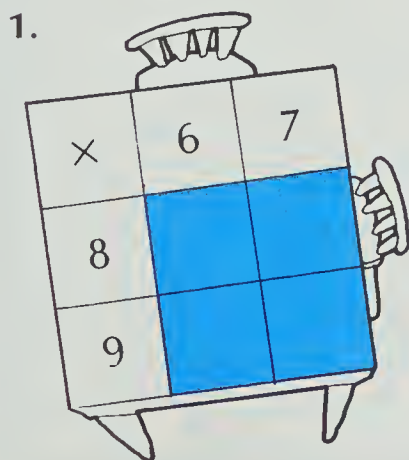
PRACTICE

Find three areas for each shape using these units:
bird stamps, fish stamps, square centimetres.



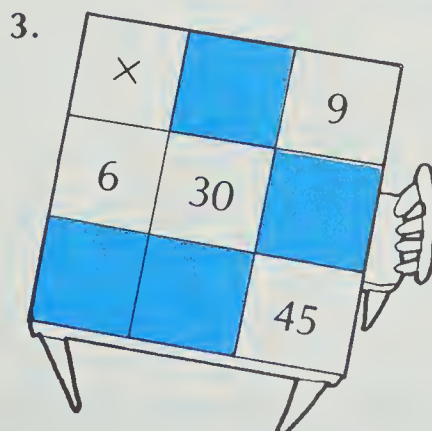
Small Tables

Copy and complete each table.



2.

×	3		8	5	
9		63			36

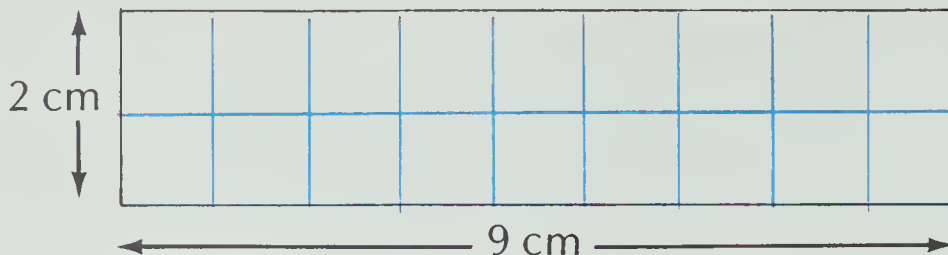


4.

×		7
		42
9	72	

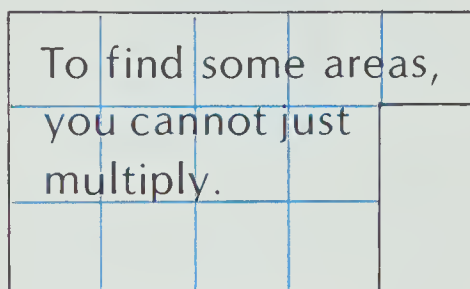
Finding Area

The area of a rectangle can be found by multiplying.



If you count, you get 18 square centimetres.

If you multiply, you get $2 \times 9 = 18$.

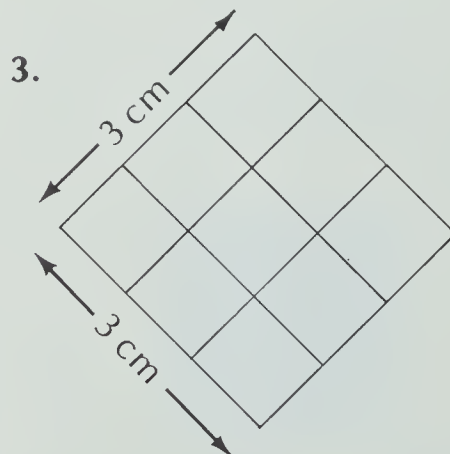
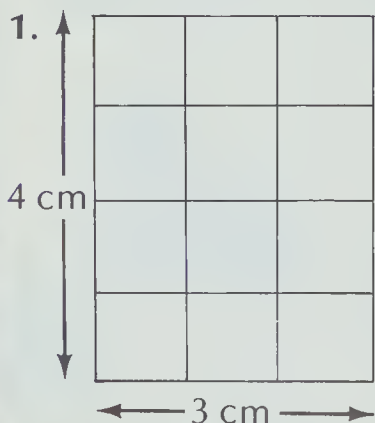


To find some areas,
you cannot just
count.

EXERCISES

Find the area in square centimetres.

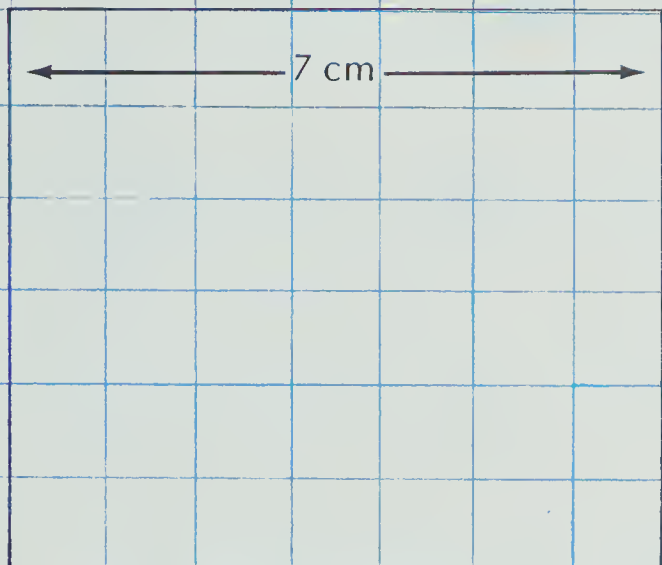
Multiply when you can. Otherwise count.



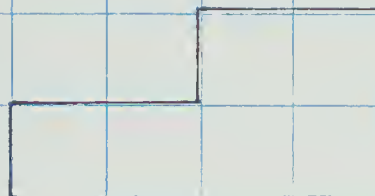
PRACTICE

Find the area in square centimetres.
Multiply if possible. Otherwise count.

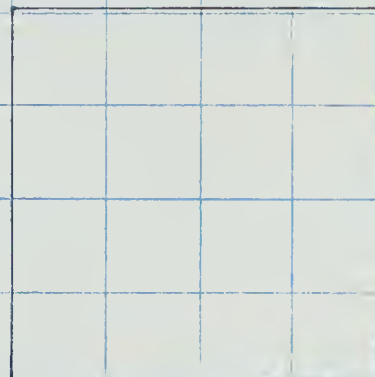
1.



2.



3.



Trace the grid to draw figures with these areas.

4. 20 square centimetres 5. 54 square centimetres (6×9)
6. 21 square centimetres. 7. 56 square centimetres (7×8)

REVIEW

Multiply.

A48

1. 8×4

2. 8×7

3. 3×8

4. 5×8

5. $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$

6. $\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$

7. $\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$

8. $\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$

A49

9. 9×4

10. 9×7

11. 3×9

12. 8×9

13. $\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$

14. $\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$

15. $\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$

16. $\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$

Copy and complete.

1. $3 \times 5 = \blacksquare$

2.
$$\begin{array}{r} 5 \\ \times 3 \\ \hline \blacksquare \end{array}$$

3. $6 \times 2 = \blacksquare$

4.
$$\begin{array}{r} 2 \\ \times 6 \\ \hline \blacksquare \end{array}$$

5. $2 \times \blacksquare = 14$

6.
$$\begin{array}{r} \blacksquare \\ \times 2 \\ \hline 14 \end{array}$$

7. $\blacksquare \times 9 = 36$

8.
$$\begin{array}{r} 9 \\ \times \blacksquare \\ \hline 36 \end{array}$$

Multiply.

9. 6×6

10. 3×6

11. 6×7

12. 5×6

13.
$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

17. 7×7

18. 7×3

19. 8×7

20. 0×7

21.
$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

24.
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

25. 8×8

26. 5×8

27. 8×6

28. 8×1

29.
$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

30.
$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

31.
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

32.
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

33. 9×9

34. 3×9

35. 9×8

36. 9×7

37.
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

38.
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

39.
$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

40.
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

SUBTRACTION

Subtract.

$$\begin{array}{r} 1. \quad 356 \\ - 128 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 742 \\ - 408 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 680 \\ - 606 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 873 \\ - \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 354 \\ - 193 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 870 \\ - 790 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 329 \\ - \quad 64 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 446 \\ - \quad 86 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 632 \\ - 254 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 525 \\ - 156 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 350 \\ - 173 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 577 \\ - \quad 98 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 406 \\ - 137 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 705 \\ - \quad 63 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 400 \\ - 237 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 600 \\ - \quad 75 \\ \hline \end{array}$$

Find the difference.

17. \$7.26 and \$3.54

18. \$2.28 and \$6.47

19. \$1.35 and \$6.00

20. \$2.07 and \$0.75

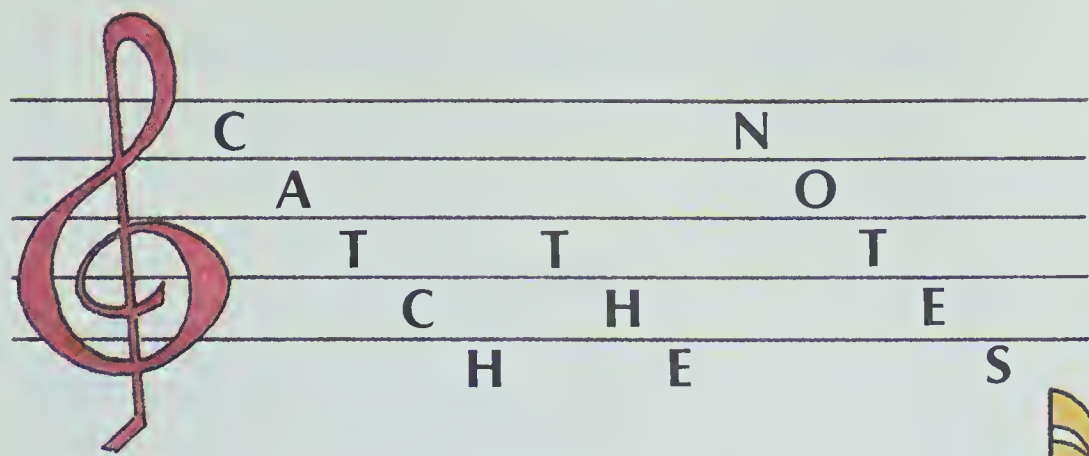
Solve. Show both steps.

21. 625 coins in a collection
175 are Canadian.
235 are American.
How many coins come from elsewhere?

UNIT 13

DIVISION FACTS II





Find the quotient on each note.

1. $4 \div 4$

2. $0 \div 5$

3. $9 \div 3$

4. $12 \div 2$

5. $10 \div 2$

6. $20 \div 4$

7. $16 \div 2$

8. $8 \div 4$

9. $18 \div 2$

10. $12 \div 2$

11. $35 \div 5$

12. $40 \div 5$

13. $16 \div 4$

14. $18 \div 3$

15. $3 \div 3$

16. $15 \div 3$

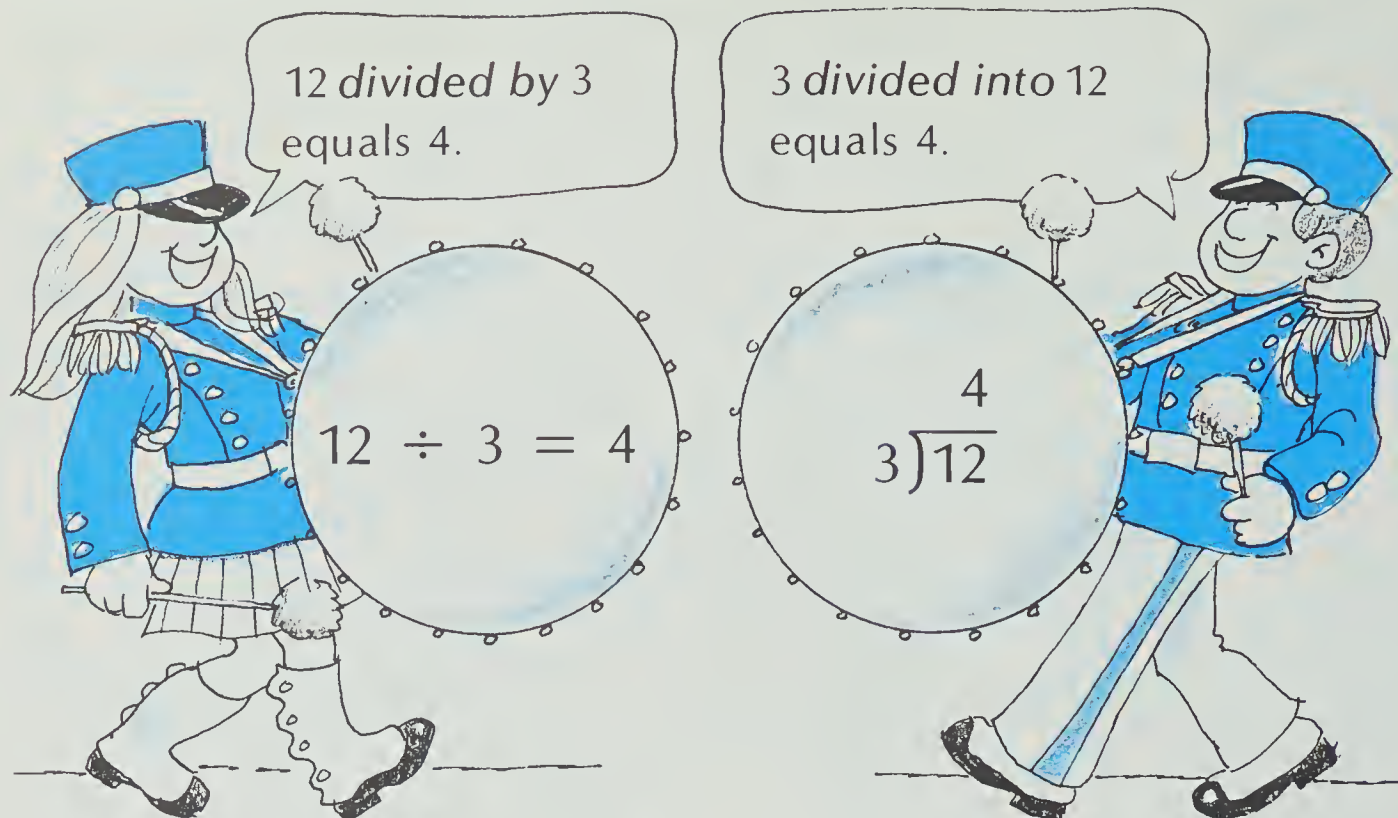
17. $0 \div 3$

18. $14 \div 2$

Musical Mystery
Find the note with the largest quotient.

Another Way to Show Division

There are two ways to show division.



To solve both divisions, think $\blacksquare \times 3 = 12$.

EXERCISES

Rewrite each division using $\overline{)}$.

1. $8 \div 2 = 4$

2. $6 \div 3 = 2$

3. $24 \div 4 = 6$

4. $10 \div 5 = 2$

5. $10 \div 2 = 5$

6. $5 \div 5 = 1$

Rewrite each division using $\overline{)}$. Find the quotient.

7. $24 \div 3$

8. $24 \div 4$

9. $25 \div 5$

10. $20 \div 5$

11. $20 \div 4$

12. $12 \div 4$

13. $12 \div 3$

14. $12 \div 2$

15. $18 \div 2$

PRACTICE

Choose four other names for each number.

1.

9	
$18 \div 3$	$45 \div 5$
$27 \div 3$	$24 \div 4$
$18 \div 2$	$36 \div 4$

2.

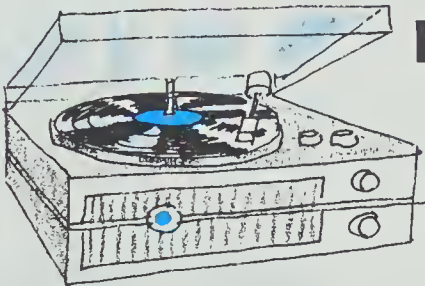
6	
$2 \overline{)12}$	$3 \overline{)18}$
$4 \overline{)20}$	$5 \overline{)5}$
$5 \overline{)30}$	$4 \overline{)24}$

3.

8	
$4 \overline{)12}$	$3 \overline{)18}$
$3 \overline{)24}$	$2 \overline{)16}$
$5 \overline{)40}$	$4 \overline{)32}$

4.

4	
$12 \div 3$	$5 \overline{)20}$
$16 \div 4$	$8 \div 2$
$4 \overline{)12}$	$3 \overline{)9}$



Record Collection



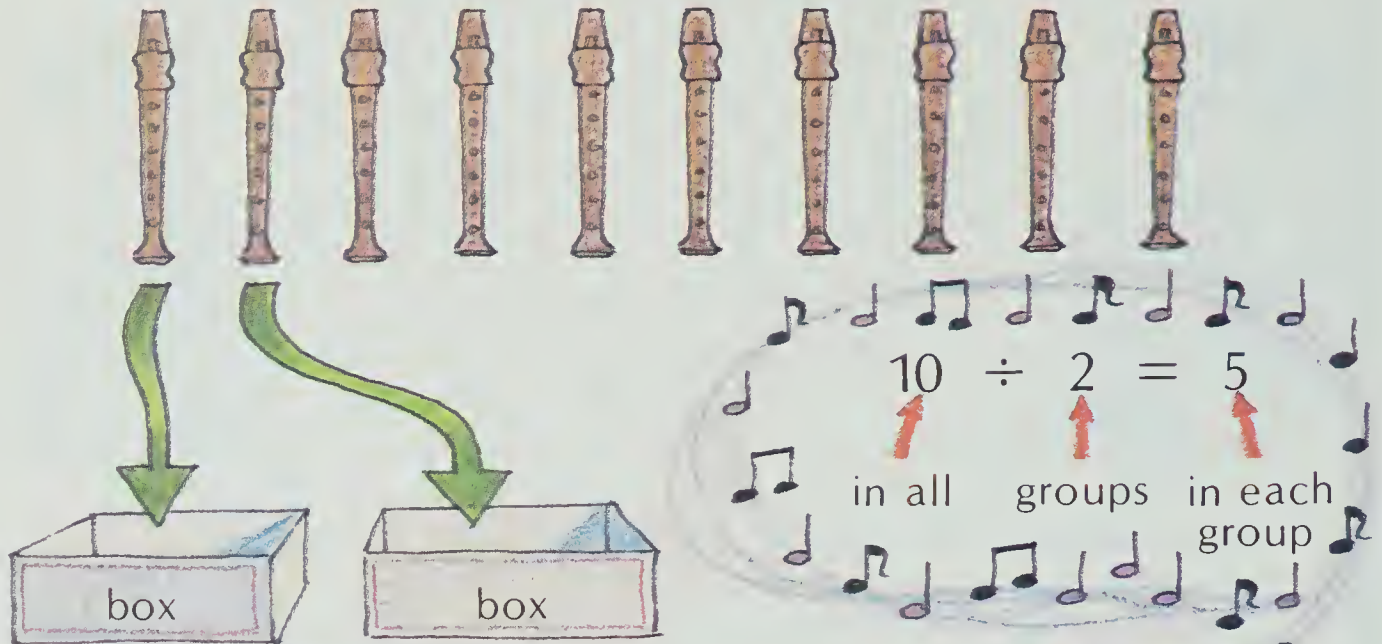
Write a number sentence for each.

- 40 songs
5 songs on each record
How many records?
- 5 records
7 songs on each record
How many songs?
- 12 records
2 in each album
How many albums?
- 15 records
3 in a stack
How many stacks?

Another Meaning for Division

10 recorders are divided between 2 boxes.

How many are in each box?

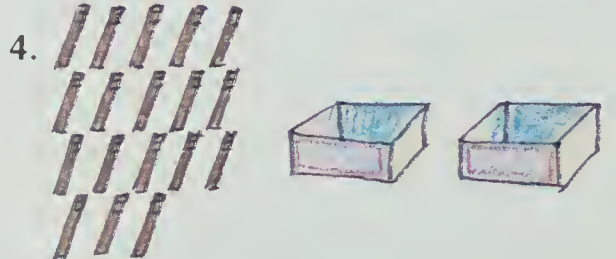
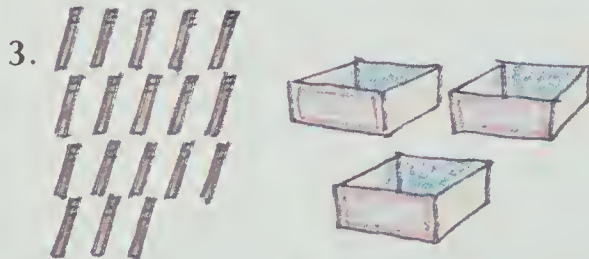
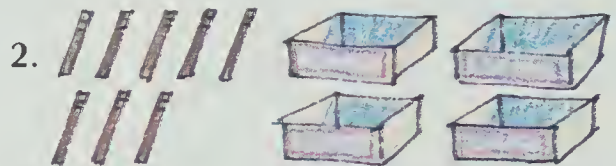


Division can tell how many are in each group.

EXERCISES

How many drumsticks for each box?

Write an equation.



PRACTICE

18 band students are lining up in equal rows.
Draw a picture **and** write a division sentence
to show how many will be in each row.

1. 2 rows
2. 3 rows
3. 6 rows
4. 9 rows



Solve.

5. If 4 tuba players share 24 grapes,
how many grapes will each player get?

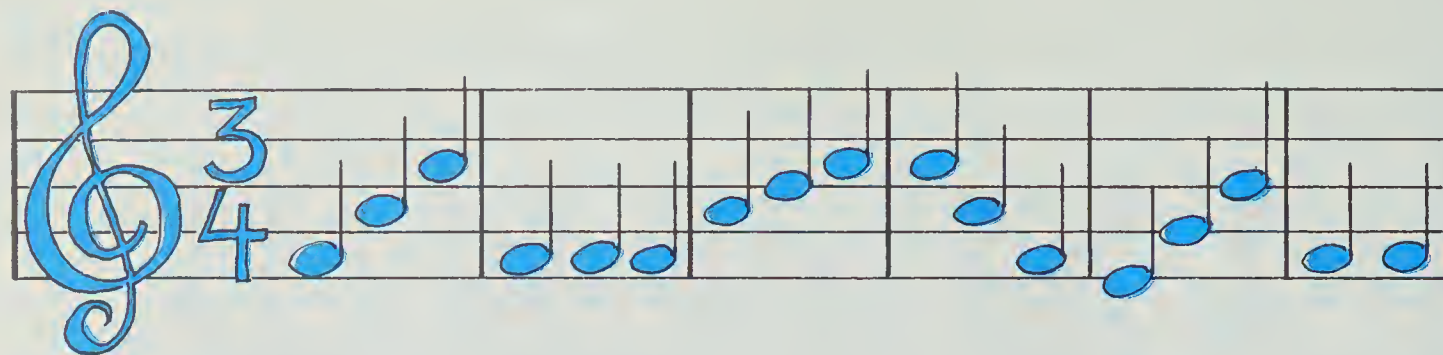
Dealing Cards



Harmony is a singing card dealer.
How many cards does each player get?

Game	Number of cards	Number of players	Number of cards per player
1.	24	six	?
2.	24	eight	?
3.	28	seven	?
4.	20	four	?
5.	27	nine	?

Remainders



15 notes grouped in threes
How many groups?
There are **5** groups of 3 notes
and **0** left over.

$$15 \div 3 = 5 \text{ R } 0$$

$$\begin{array}{r} 5 \\ 3 \overline{) 15} \\ -15 \\ \hline 0 \end{array}$$

17 notes grouped in threes
How many groups?
There are **5** groups of 3 notes
and **2** left over.

$$17 \div 3 = 5 \text{ R } 2$$

$$\begin{array}{r} 5 \\ 3 \overline{) 17} \\ -15 \\ \hline 2 \end{array}$$

The leftover is called the **remainder**.

EXERCISES

Divide. Circle the questions with remainders.

1. $20 \div 5$

2. $21 \div 5$

3. $22 \div 5$

4. $23 \div 5$

5. $24 \div 5$

6. $25 \div 5$

7. $3 \overline{) 6}$

8. $3 \overline{) 7}$

9. $3 \overline{) 8}$

10. $4 \overline{) 36}$

11. $4 \overline{) 37}$

12. $4 \overline{) 39}$

PRACTICE

Divide. Watch for remainders.

1. $3 \overline{)22}$

2. $4 \overline{)23}$

3. $2 \overline{)9}$

4. $5 \overline{)12}$

5. $4 \overline{)28}$

6. $3 \overline{)11}$

7. $5 \overline{)32}$

8. $2 \overline{)17}$

9. $0 \div 5$

10. $6 \div 5$

11. $19 \div 4$

12. $36 \div 4$

Mr. Boom has 16 drums in his band.

How many complete rows of drums can he have?

13. 4 in each row

14. 3 in each row

15. 2 in each row

16. 1 in each row

17. 5 in each row

18. 6 in each row

Ms. Tweet has 23 flutes in her band.

How many are left over when these rows are formed?

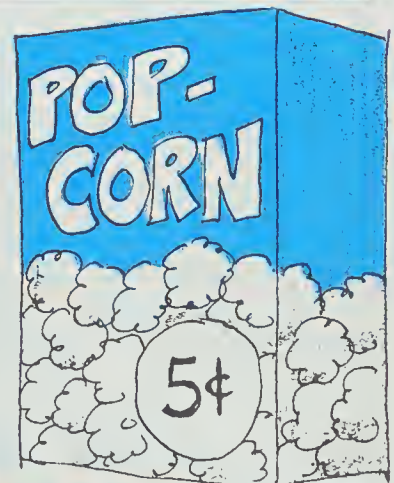
19. 3 in each row

20. 7 in each row

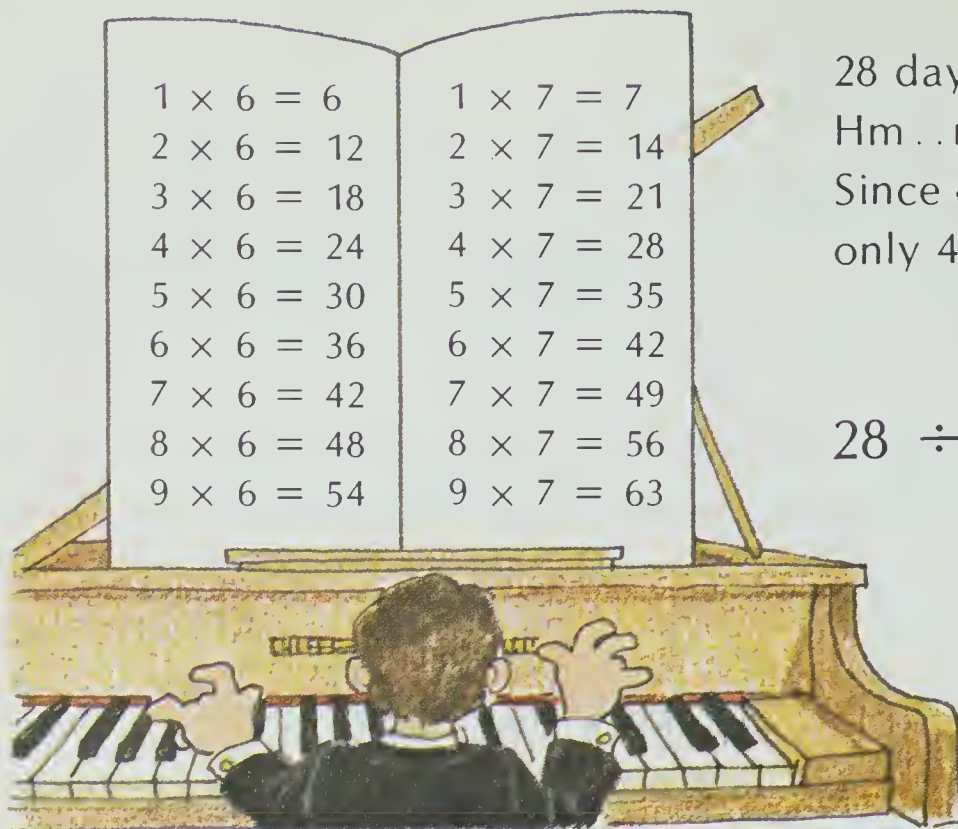
\$ Money Matters \$

Jan has 25¢.

1. How much gum can she buy?
2. What could she buy without change?
3. What purchase leaves her with 1¢ change?
4. Why shouldn't Jan spend lots of money on candy?



Dividing by 6 and 7



$1 \times 6 = 6$

$2 \times 6 = 12$

$3 \times 6 = 18$

$4 \times 6 = 24$

$5 \times 6 = 30$

$6 \times 6 = 36$

$7 \times 6 = 42$

$8 \times 6 = 48$

$9 \times 6 = 54$

$1 \times 7 = 7$

$2 \times 7 = 14$

$3 \times 7 = 21$

$4 \times 7 = 28$

$5 \times 7 = 35$

$6 \times 7 = 42$

$7 \times 7 = 49$

$8 \times 7 = 56$

$9 \times 7 = 63$

28 days to my piano concert.

Hm...m...7 days in a week.

Since $4 \times 7 = 28$, I have only 4 weeks left.

$$28 \div 7 = 4$$

$$\begin{array}{r} 4 \\ 7 \overline{)28} \end{array}$$

EXERCISES

Use the multiplication tables above to help you complete these.

1. $\blacksquare \times 6 = 36$

$36 \div 6 = \blacksquare$

2. $\blacksquare \times 6 = 42$

$42 \div 6 = \blacksquare$

3. $\blacksquare \times 6 = 48$

$48 \div 6 = \blacksquare$

4. $\begin{array}{r} 6 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 6 \overline{)30} \\ \hline 30 \end{array}$$

5. $\begin{array}{r} 6 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 6 \overline{)0} \\ \hline 0 \end{array}$$

6. $\begin{array}{r} 6 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 6 \overline{)18} \\ \hline 18 \end{array}$$

7. $\blacksquare \times 7 = 35$

$35 \div 7 = \blacksquare$

8. $\blacksquare \times 7 = 42$

$42 \div 7 = \blacksquare$

9. $\blacksquare \times 7 = 49$

$49 \div 7 = \blacksquare$

10. $\begin{array}{r} 7 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 7 \overline{)56} \\ \hline 56 \end{array}$$

11. $\begin{array}{r} 7 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 7 \overline{)63} \\ \hline 63 \end{array}$$

12. $\begin{array}{r} 7 \\ \times \blacksquare \\ \hline \end{array}$

$$\begin{array}{r} 7 \overline{)7} \\ \hline 7 \end{array}$$

PRACTICE

Divide. Use the multiplication tables to help you.

- | | | | |
|------------------------|------------------------|------------------------|------------------------|
| 1. $6 \overline{)12}$ | 2. $6 \overline{)30}$ | 3. $6 \overline{)18}$ | 4. $6 \overline{)24}$ |
| 5. $7 \overline{)28}$ | 6. $7 \overline{)21}$ | 7. $7 \overline{)14}$ | 8. $7 \overline{)42}$ |
| 9. $6 \overline{)42}$ | 10. $6 \overline{)43}$ | 11. $7 \overline{)35}$ | 12. $7 \overline{)37}$ |
| 13. $6 \overline{)48}$ | 14. $7 \overline{)63}$ | 15. $7 \overline{)56}$ | 16. $6 \overline{)54}$ |
| 17. $7 \overline{)49}$ | 18. $6 \overline{)36}$ | 19. $6 \overline{)15}$ | 20. $7 \overline{)12}$ |

How many weeks? How many extra days?

- | | | | |
|-------------|-------------|-------------|-------------|
| 21. 16 days | 22. 36 days | 23. 30 days | 24. 54 days |
|-------------|-------------|-------------|-------------|

REVIEW

A50 Rewrite using $\overline{)}$. Find the quotient.

- | | | | |
|----------------|----------------|----------------|----------------|
| 1. $14 \div 2$ | 2. $21 \div 3$ | 3. $25 \div 5$ | 4. $17 \div 3$ |
|----------------|----------------|----------------|----------------|

Write a division equation.

- | | |
|--|---|
| A51 5.  | 6.  |
|--|---|

A52 Divide.

- | | | | |
|-----------------------|-----------------------|-----------------------|------------------------|
| 7. $5 \overline{)22}$ | 8. $3 \overline{)16}$ | 9. $2 \overline{)19}$ | 10. $4 \overline{)26}$ |
|-----------------------|-----------------------|-----------------------|------------------------|

- | | | | |
|---------------------------|------------------------|------------------------|------------------------|
| A53 11. $6 \overline{)6}$ | 12. $7 \overline{)14}$ | 13. $6 \overline{)54}$ | 14. $7 \overline{)49}$ |
| 15. $7 \overline{)7}$ | 16. $6 \overline{)18}$ | 17. $7 \overline{)36}$ | 18. $6 \overline{)38}$ |

Dividing by 8 and 9

$$\begin{array}{ll} 0 \times 8 = 0 & 1 \times 8 = 8 \\ 2 \times 8 = 16 & 3 \times 8 = 24 \\ 4 \times 8 = 32 & 5 \times 8 = 40 \\ 6 \times 8 = 48 & 7 \times 8 = 56 \\ 8 \times 8 = 64 & 9 \times 8 = 72 \end{array}$$

$$\begin{array}{ll} 0 \times 9 = 0 & 1 \times 9 = 9 \\ 2 \times 9 = 18 & 3 \times 9 = 27 \\ 4 \times 9 = 36 & 5 \times 9 = 45 \\ 6 \times 9 = 54 & 7 \times 9 = 63 \\ 8 \times 9 = 72 & 9 \times 9 = 81 \end{array}$$

$$6 \times 8 = 48$$

$$\begin{array}{r} 6 \\ 8 \overline{)48} \end{array}$$



$$6 \times 9 = 54$$

$$54 \div 9 = 6$$

EXERCISES

Copy and complete.

1. $\blacksquare \times 8 = 56$
 $56 \div 8 = \blacksquare$

2. $\blacksquare \times 8 = 72$
 $72 \div 8 = \blacksquare$

3. $\blacksquare \times 8 = 64$
 $64 \div 8 = \blacksquare$

4. $\begin{array}{r} 8 \\ \times \blacksquare \\ \hline 40 \end{array}$ $8 \overline{)40}$

5. $\begin{array}{r} 8 \\ \times \blacksquare \\ \hline 48 \end{array}$ $8 \overline{)48}$

6. $\begin{array}{r} 8 \\ \times \blacksquare \\ \hline 32 \end{array}$ $8 \overline{)32}$

7. $\blacksquare \times 9 = 72$
 $72 \div 9 = \blacksquare$

8. $\blacksquare \times 9 = 36$
 $36 \div 9 = \blacksquare$

9. $\blacksquare \times 9 = 63$
 $63 \div 9 = \blacksquare$

10. $\begin{array}{r} 9 \\ \times \blacksquare \\ \hline 81 \end{array}$ $9 \overline{)81}$

11. $\begin{array}{r} 9 \\ \times \blacksquare \\ \hline 27 \end{array}$ $9 \overline{)27}$

12. $\begin{array}{r} 9 \\ \times \blacksquare \\ \hline 18 \end{array}$ $9 \overline{)18}$

PRACTICE

Find the quotient.

1. $8 \overline{)56}$

2. $8 \overline{)57}$

3. $8 \overline{)24}$

4. $8 \overline{)32}$

5. $8 \overline{)72}$

6. $8 \overline{)64}$

7. $8 \overline{)67}$

8. $8 \overline{)70}$

9. $16 \div 8$

10. $0 \div 8$

11. $48 \div 8$

12. $40 \div 8$

13. $9 \overline{)81}$

14. $9 \overline{)72}$

15. $9 \overline{)63}$

16. $9 \overline{)65}$

17. $9 \overline{)45}$

18. $9 \overline{)36}$

19. $9 \overline{)39}$

20. $9 \overline{)27}$

21. $18 \div 9$

22. $9 \div 9$

23. $0 \div 9$

24. $10 \div 9$

Solve.

25. There are 36 children in the dancing class.
There are 9 groups of equal size.
How many children are in each group?

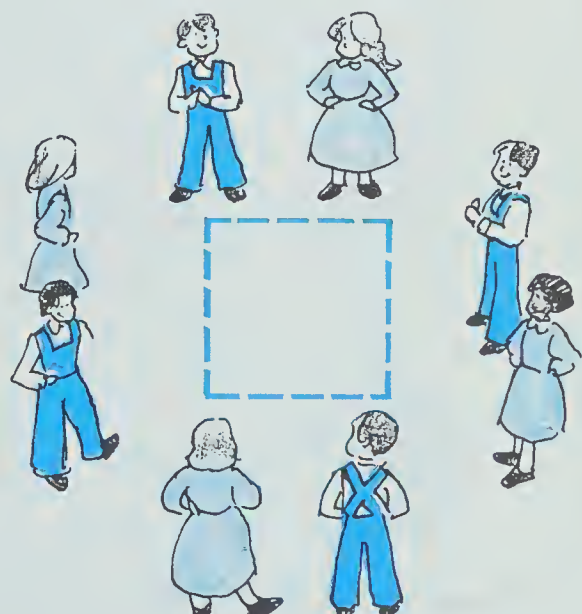
Swing Your Partner

For square dancing, 4 pairs of students are needed.

How many squares can be made from each group of students?

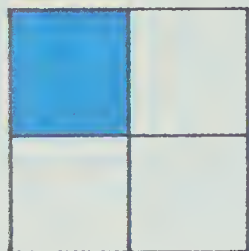
How many students are left out?

- | | |
|----------------|----------------|
| 1. 40 students | 2. 48 students |
| 3. 72 students | 4. 44 students |
| 5. 50 students | 6. 60 students |



Fractions

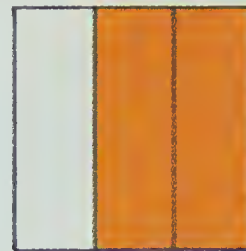
What **fraction** of the **whole** is shaded?



1 part is shaded.
4 parts, the same size

$\frac{1}{4}$ is shaded.

One fourth is shaded.



2 parts are shaded.
3 parts, the same size

$\frac{2}{3}$ is shaded.

Two thirds is shaded.

EXERCISES

Copy and complete each answer.

1. ☐ parts shaded
☐ parts, the same size
☐ of the whole is shaded.

2. ☐ parts shaded
☐ parts, the same size
☐ of the whole is shaded.

3. ☐ $\frac{\quad}{3}$

4. ☐ $\frac{\quad}{5}$

5. ☐ $\frac{\quad}{10}$

6. ☐ $\frac{4}{\quad}$

7. ☐ $\frac{1}{\quad}$

8. ☐ $\frac{3}{\quad}$

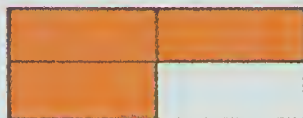
PRACTICE

What fraction of the whole is shaded?

1.



2.



3.



4.



5.



6.



7.



8.



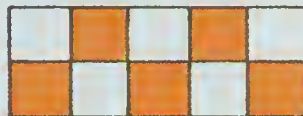
9.



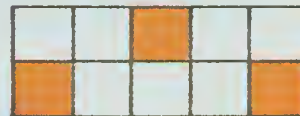
10.



11.



12.



Write the fraction.

13. one third

14. three fourths

15. one half

16. two fifths

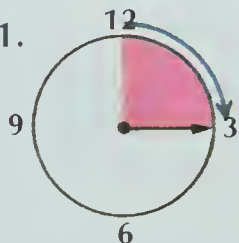
17. four tenths

18. one tenth

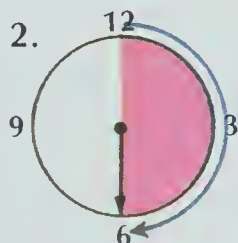
Thinking Part-time

What **fraction** of an hour has the minute hand moved?

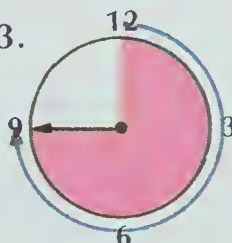
1.



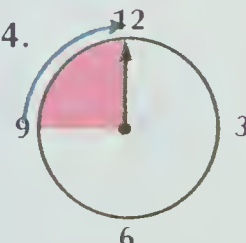
2.



3.



4.



Write the time.

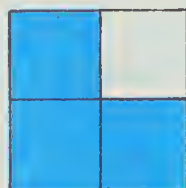
5. half past three

6. half past ten

7. quarter ($\frac{1}{4}$) past five

8. quarter ($\frac{1}{4}$) to six

Comparing Fractions



$\frac{3}{4}$ of the square is blue.



$\frac{1}{4}$ of the square is blue.

$\frac{1}{4}$ is less than $\frac{3}{4}$.

$\frac{3}{4}$ is greater than $\frac{1}{4}$.

EXERCISES

Write the greater fraction.



$\frac{1}{4}$ or $\frac{2}{4}$



$\frac{3}{4}$ or $\frac{2}{4}$



$\frac{1}{4}$ or $\frac{0}{4}$



$\frac{1}{2}$ or $\frac{2}{2}$



$\frac{2}{3}$ or $\frac{1}{3}$



$\frac{2}{3}$ or $\frac{3}{3}$



$\frac{2}{5}$ or $\frac{3}{5}$



$\frac{1}{5}$ or $\frac{4}{5}$



$\frac{4}{5}$ or $\frac{3}{5}$



$\frac{5}{10}$ or $\frac{7}{10}$



$\frac{6}{10}$ or $\frac{5}{10}$



$\frac{9}{10}$ or $\frac{8}{10}$

PRACTICE

Write the greater fraction.

1. $\frac{3}{5}$ or $\frac{4}{5}$

2. $\frac{3}{4}$ or $\frac{1}{4}$

3. $\frac{2}{3}$ or $\frac{1}{3}$

4. $\frac{1}{4}$ or $\frac{2}{4}$

5. $\frac{2}{5}$ or $\frac{4}{5}$

6. $\frac{7}{10}$ or $\frac{3}{10}$

7. $\frac{6}{10}$ or $\frac{9}{10}$

8. $\frac{2}{10}$ or $\frac{1}{10}$

9. $\frac{1}{2}$ or $\frac{0}{2}$

Write a fraction for the smaller portion.



Solve.

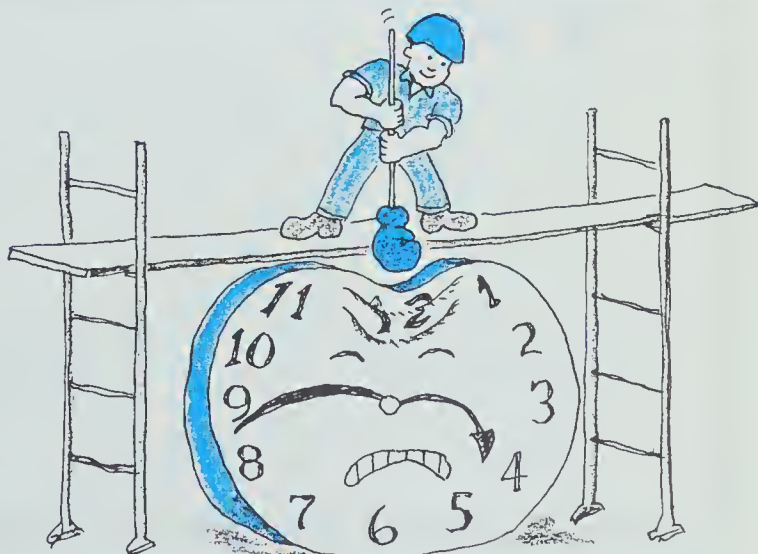
16. Reed ate $\frac{2}{3}$ of an orange.
Mandy ate the rest.
Who ate the most?



Working Over-time

Which is later?

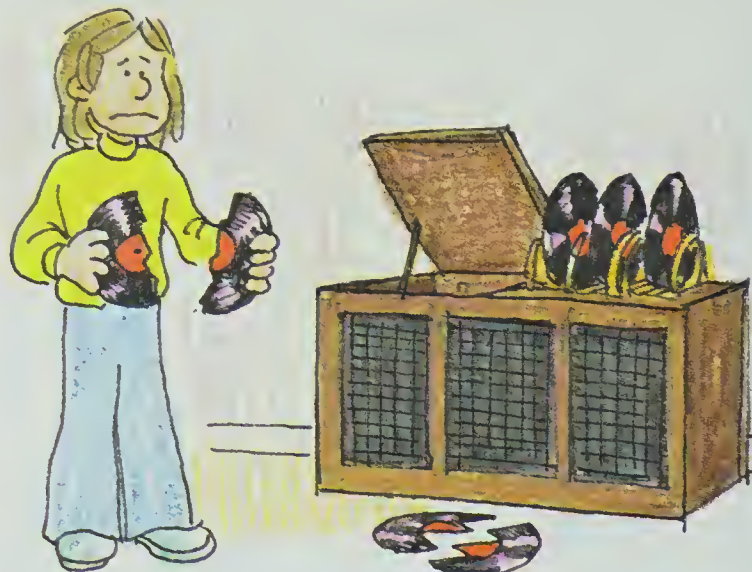
- 9:00 or half past nine
- 7:00 or quarter to seven
- 4:00 or quarter past four
- 2:00 or quarter to two



Fractions of a Set

5 records in all
2 are broken.

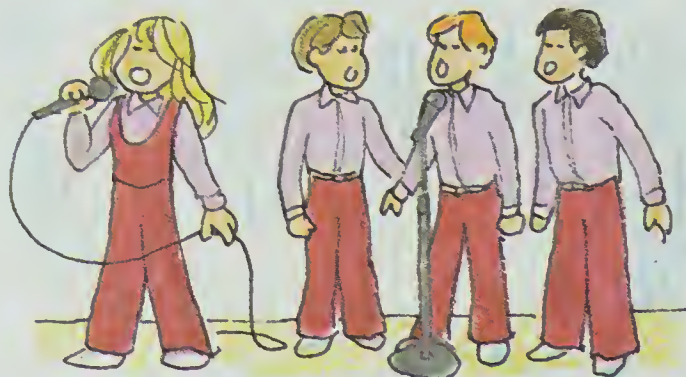
$\frac{2}{5}$ of the records are broken.



EXERCISES

Complete each answer.

1. ■ singers in all
■ is a girl.
 $\frac{■}{4}$ of the singers are girls.



2. ■ instruments in all
■ are drums.
 $\frac{■}{5}$ of the instruments are drums.



3. 10 piano keys in all
■ are black.
 $\frac{■}{10}$ of the keys are black.



PRACTICE

What fraction of each is shaded?

1.



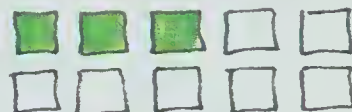
$$\frac{\blacksquare}{5}$$

2.



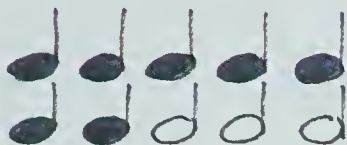
$$\frac{\blacksquare}{4}$$

3.



$$\frac{\blacksquare}{10}$$

4.



$$\frac{7}{\blacksquare}$$

5.



$$\frac{\blacksquare}{\blacksquare}$$

6.



$$\frac{\blacksquare}{\blacksquare}$$

REVIEW

Divide.

A54

1. $8 \overline{)24}$

2. $9 \overline{)81}$

3. $8 \overline{)40}$

4. $9 \overline{)63}$

What fraction of each is shaded?

N10

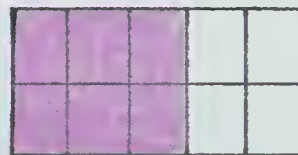
3.



4.



5.



Which is greater?

N11

6. $\frac{3}{4}$ or $\frac{1}{4}$

7. $\frac{5}{10}$ or $\frac{6}{10}$

8. $\frac{2}{3}$ or $\frac{1}{3}$

What fraction of each is shaded?

N12

9.



$$\frac{\blacksquare}{3}$$

10.



$$\frac{3}{\blacksquare}$$

11.



$$\frac{\blacksquare}{\blacksquare}$$

Divide.

1. $18 \div 3$

2. $3 \overline{)18}$

3. $30 \div 5$

4. $5 \overline{)30}$

5. $25 \div 5$

6. $5 \overline{)25}$

7. $36 \div 4$

8. $4 \overline{)36}$

Solve.

9. 18 drummers

2 rows

How many in each row?

10. 15 buttons

3 uniforms

How many for each uniform?

Divide.

11. $2 \overline{)9}$

12. $5 \overline{)38}$

13. $3 \overline{)29}$

14. $4 \overline{)22}$

15. $3 \overline{)17}$

16. $4 \overline{)30}$

17. $2 \overline{)15}$

18. $3 \overline{)25}$

19. $6 \overline{)42}$

20. $6 \overline{)36}$

21. $7 \overline{)56}$

22. $7 \overline{)49}$

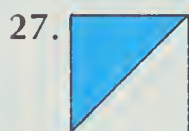
23. $6 \overline{)48}$

24. $7 \overline{)63}$

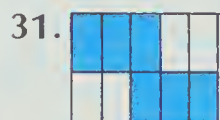
25. $6 \overline{)31}$

26. $7 \overline{)26}$

What fraction of the whole is shaded?



Write the larger fraction.



or



What fraction is shaded?



MULTIPLICATION

Copy and complete.

1. $3 \times \blacksquare = 21$

2. \blacksquare

$$\begin{array}{r} \times 3 \\ \hline 21 \end{array}$$

3. $\blacksquare \times 5 = 35$

4. $\begin{array}{r} 5 \\ \times \blacksquare \\ \hline 35 \end{array}$

Multiply.

5. $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$

6. $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$

7. $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$

8. $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$

9. 7×7

10. 7×9

11. 7×8

12. 7×4

13. $\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$

14. $\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$

15. $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$

16. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$

17. 9×7

18. 9×8

19. 9×6

20. 9×9

Copy and complete each table.

21.

\times	5	8	3	9	1
6	\blacksquare	\blacksquare	\blacksquare	\blacksquare	\blacksquare
7	\blacksquare	\blacksquare	\blacksquare	\blacksquare	\blacksquare

22.

\times	7	4	8	6	2
9	\blacksquare	\blacksquare	\blacksquare	\blacksquare	\blacksquare
8	\blacksquare	\blacksquare	\blacksquare	\blacksquare	\blacksquare

Solve.

23. 8 rows
6 eggs in a row
How many eggs?

24. 9 weeks
How many days?

UNIT 14

DECIMALS



Feasting on Fractions

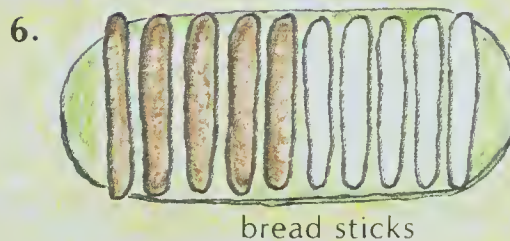
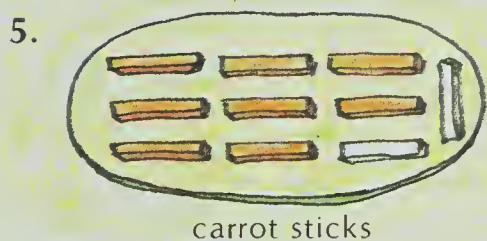
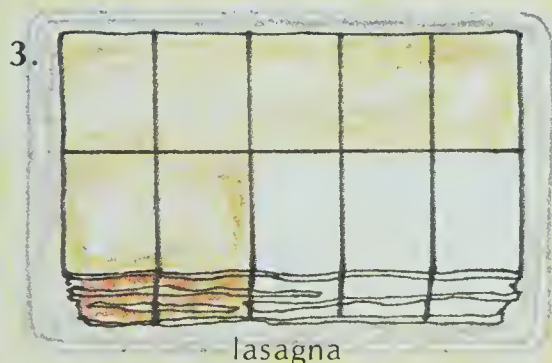
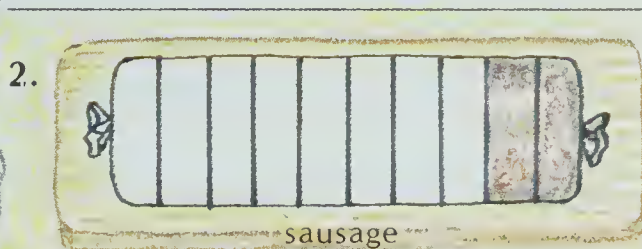
Write the fraction that is shaded.
Also write the fraction in words.

Example:



$$\frac{3}{10}$$

three tenths



Draw a food picture for each fraction.

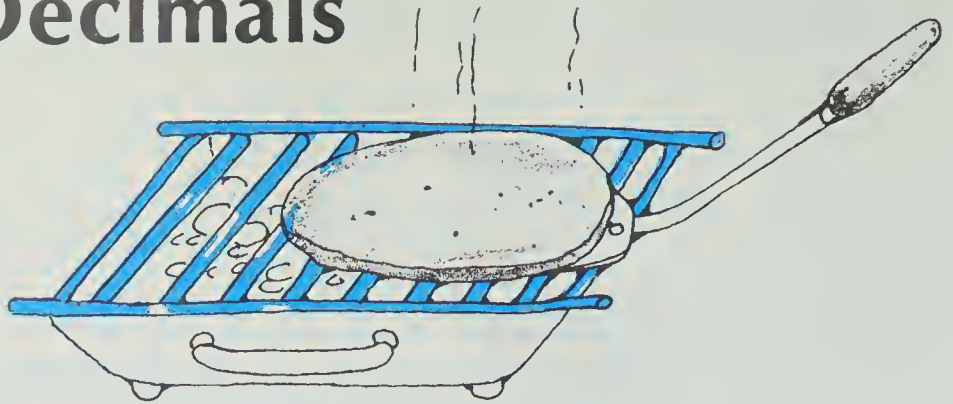
7. $\frac{1}{10}$

8. $\frac{9}{10}$

9. four tenths 10. ten tenths

Tenths as Decimals

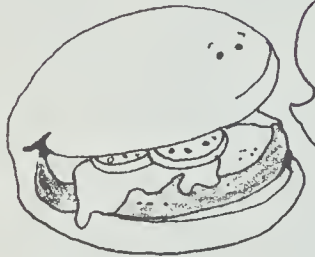
The hamburger covers $\frac{6}{10}$ of the grill pieces.



$\frac{6}{10}$ can also be written

0.6
no ones 6 tenths
decimal point

It takes 10 tenths to make 1 one.



It takes 10 ones to make 1 ten,
10 tens to make 1 hundred, and
10 hundreds to make 1 thousand.

EXERCISES

Write as a decimal.

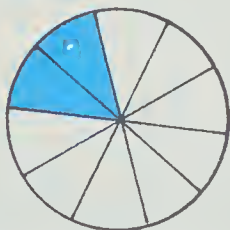
1. $\frac{1}{10}$ 2. $\frac{3}{10}$ 3. $\frac{5}{10}$ 4. $\frac{7}{10}$ 5. $\frac{9}{10}$ 6. $\frac{0}{10}$

7. two tenths

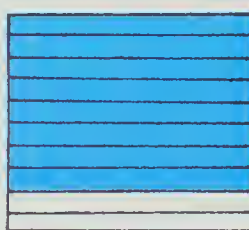
8. four tenths

9. eight tenths

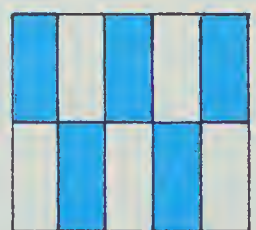
10.



11.



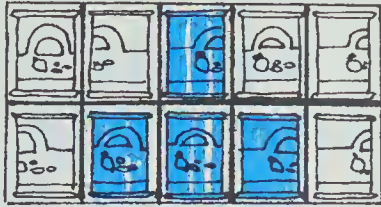
12.



PRACTICE

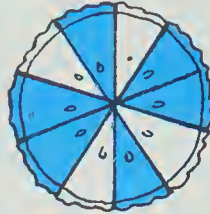
Write a decimal for the shaded part.

1.



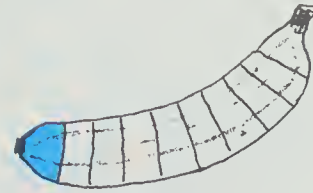
fruit salad

2.



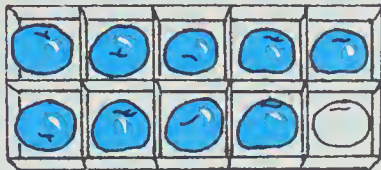
apple pie

3.



banana

4.



plums

5.



pineapple

6.



grapes

Draw a fruit picture for each decimal.

7. 0.3

8. 0.1

9. two tenths

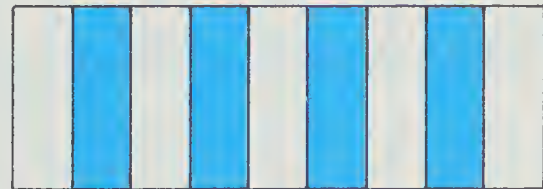
10. four tenths

The pictures do **not** show 0.4. Explain why.

11.



12.



Break Fast

Let

--	--	--	--	--	--	--	--	--	--

 be 1.0.

1.0 can be broken into

0.3

 and

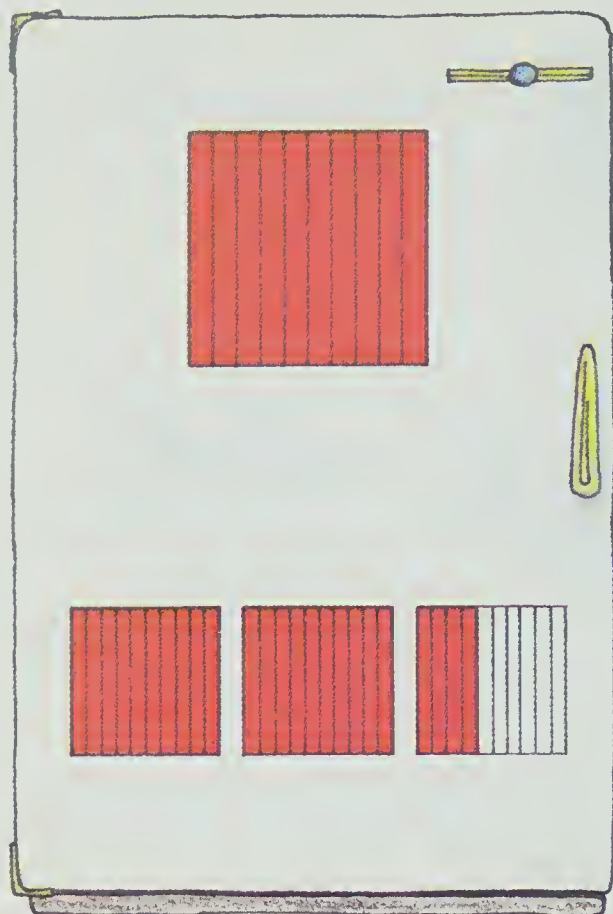
0.7			
-----	--	--	--

1. Break 1.0 into **two** pieces in 5 different ways.

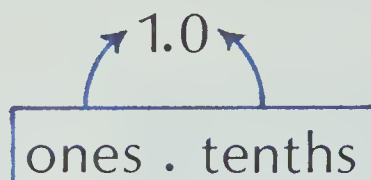
2. Break 1.0 into **three** pieces in 10 different ways.



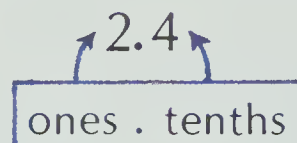
Decimals Greater Than 1.0



10 tenths = 1 one 0 tenths



24 tenths = 2 ones 4 tenths



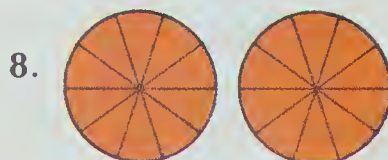
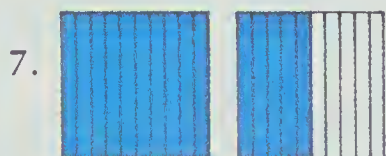
You read 2.4 as *two and four tenths*.

EXERCISES

Write as a decimal.

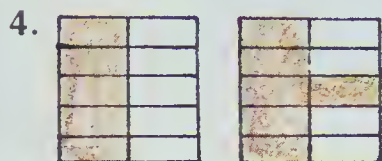
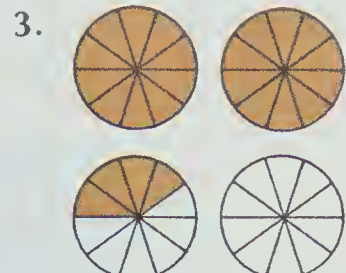
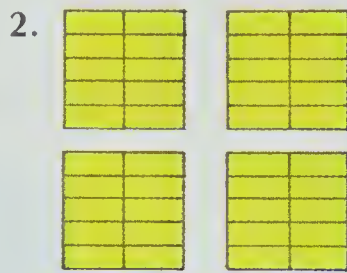
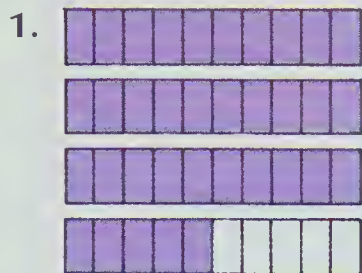
- | | | |
|--------------|--------------|--------------|
| 1. 15 tenths | 2. 26 tenths | 3. 12 tenths |
| 4. 20 tenths | 5. 9 tenths | 6. 30 tenths |

How many *tenths*? Write as a decimal.

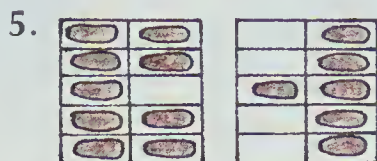


PRACTICE

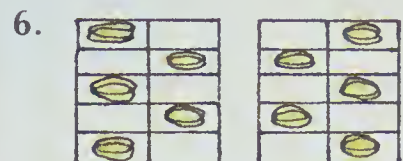
Write as a decimal.



cake



dates



nuts

Write how you read the decimal.

7. 6.4

8. 3.2

9. 5.9

10. 8.0

11. 0.8

Draw a picture for each decimal.

12. 2.4

13. 1.3

14. 2.0

15. 0.2

16. 3.5

Ingredients for Counting

Count by tenths from 1.8 to 6.8.

Remember to trade 10 tenths for a whole.



ones . tenths

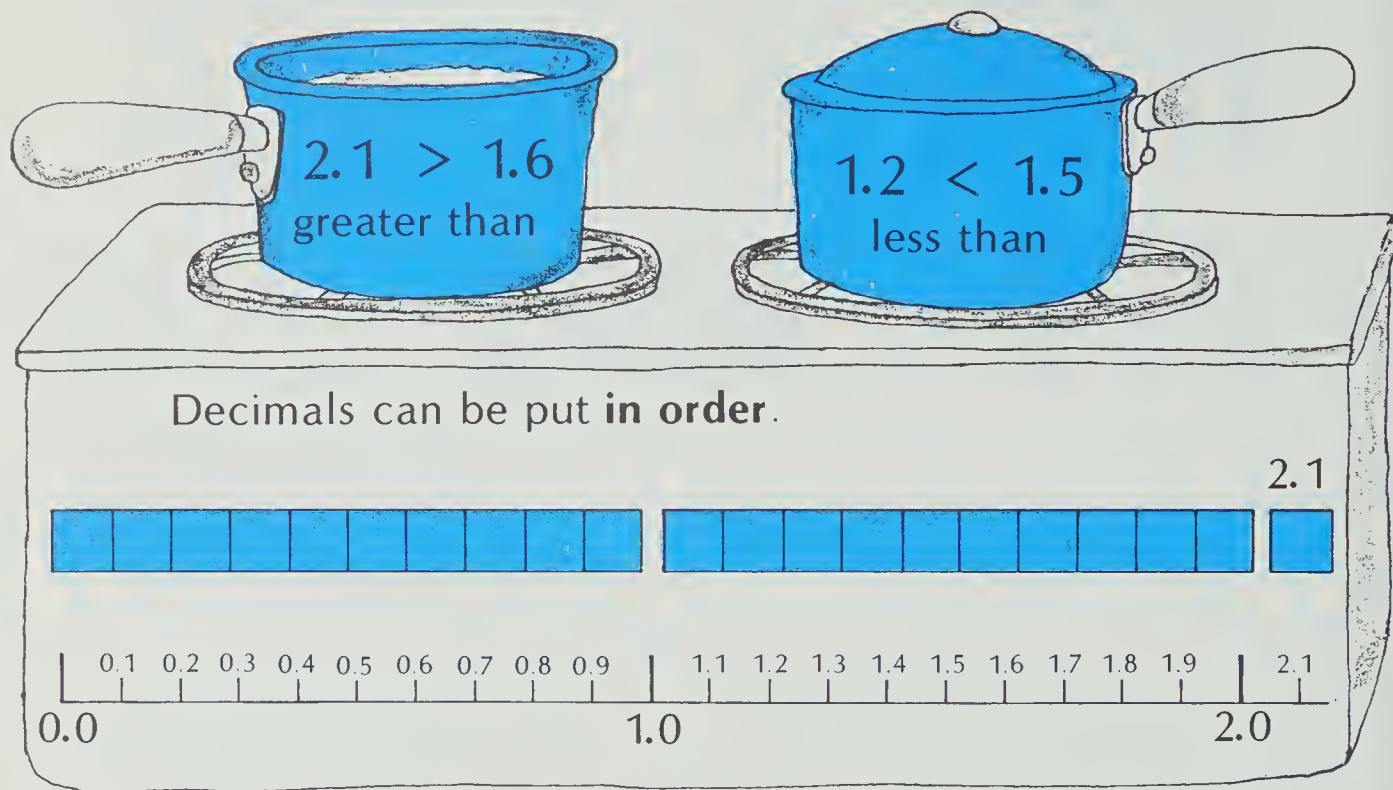
1.8
1.9
2.0
2.1
2.2

Comparing Decimals

Decimals are **compared** like other numbers.

Compare the ones.

Compare the tenths only if the ones are equal.



EXERCISES

Which is greater?

- | | | |
|---------------|---------------|---------------|
| 1. 2.1 or 1.8 | 2. 4.0 or 3.5 | 3. 2.5 or 4.0 |
| 4. 3.2 or 3.6 | 5. 4.0 or 4.2 | 6. 6.4 or 6.1 |

Which is less?

- | | | |
|---------------|---------------|---------------|
| 7. 1.2 or 1.7 | 8. 2.3 or 1.2 | 9. 0.9 or 5.0 |
|---------------|---------------|---------------|

Put each set in order.

- | | |
|------------------------|------------------------|
| 10. 3.2, 1.5, 2.4, 0.6 | 11. 1.6, 2.5, 2.7, 1.4 |
|------------------------|------------------------|

PRACTICE

Which is greater?

1. 3.5 or 5.3
2. 2.4 or 2.1
3. 1.5 or 0.5
4. 1.5 or 1.7
5. 5.6 or 4.0
6. 3.2 or 3.6

Compare the decimals using $>$ and $<$.

7. $2.4 \bullet 2.3$
8. $1.3 \bullet 3.0$
9. $0.5 \bullet 0.2$
10. $5.3 \bullet 3.3$
11. $1.8 \bullet 1.0$
12. $9.3 \bullet 10.0$

Put each set in order.

13. 1.3, 1.5, 1.1
14. 2.3, 2.0, 2.7
15. 0.9, 0.6, 0.3
16. 2.1, 1.3, 3.2
17. 3.5, 5.0, 0.9
18. 1.6, 0.8, 1.8

Count by tenths.

19. 0.0 to 1.5
20. 3.5 to 4.5
21. 8.5 to 10.0

REVIEW

Write the decimal.

N13

1. $\frac{3}{10}$
2. $\frac{9}{10}$
3. two tenths



N14

5. four and one tenth



N15

Which is less?

8. 6.2 or 2.6
9. 3.1 or 3.6

Put in order.

10. 2.0, 1.4, 0.7

Litres

The **litre** is a measurement unit for liquid **capacity**.

Milk cartons come in a one-litre size.

One litre is written as **1 L**.

0.5 L is another popular size.

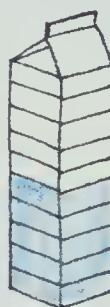
0.1 L is a small amount of liquid.



Did you know?

$$0.5 = \frac{1}{2}$$

five tenths = one half



0.5



$\frac{1}{2}$

EXERCISES

Does it hold closer to 0.5 L or 1.0 L?

1.



2.



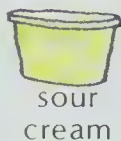
3.



4.



5.



6.



7.



8.



Complete each equation.

9. five tenths = one ■

10. $\frac{1}{2} = \text{■}.\text{■}$

PRACTICE

Does the container hold closer to 0.5 L or 1.0 L?

1.



ketchup

2.



soup

3.



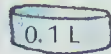
vase

4.



tea pot

Suppose this container holds 0.1 L.



Match each container with an estimated capacity.

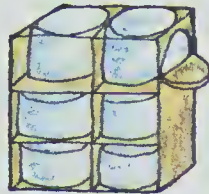
Estimates:

0.3 L

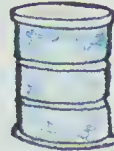
0.6 L

1.2 L

5.



6.



7.



8. How many half litres does it take to make one litre?

Many Millilitres Later

There are 1000 **millilitres** in a litre.

1. There are ■ mL in 2 L.
2. There are ■ mL in 8 L.
3. There are 6000 mL in ■ L.

There are 200 mL in 0.2 litres.

4. There are 500 mL in ■.■ L.
5. There are 100 mL in ■.■ L.
6. There are 1000 mL in ■.■ L.



Adding and Subtracting

0.7 L of milk



and

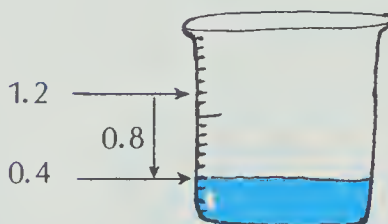
0.5 L of milk



1.2 L of milk altogether

$$\begin{array}{r} 0.7 \quad 7 \text{ tenths} \\ + 0.5 \quad + 5 \text{ tenths} \\ \hline 1.2 \quad 12 \text{ tenths} \end{array}$$

The family drank 0.8 L.



0.4 L are left.

$$\begin{array}{r} 1.2 \quad 12 \text{ tenths} \\ - 0.8 \quad - 8 \text{ tenths} \\ \hline 0.4 \quad 4 \text{ tenths} \end{array}$$

EXERCISES

Add.

1. $\begin{array}{r} 3 \text{ tenths} \\ + 4 \text{ tenths} \\ \hline \end{array}$

2. $\begin{array}{r} 0.3 \\ + 0.5 \\ \hline \end{array}$

3. $\begin{array}{r} 0.3 \\ + 0.6 \\ \hline \end{array}$

4. $\begin{array}{r} 0.3 \\ + 0.7 \\ \hline \end{array}$

5. $\begin{array}{r} 3 \text{ tenths} \\ + 8 \text{ tenths} \\ \hline \end{array}$

6. $\begin{array}{r} 0.3 \\ + 0.9 \\ \hline \end{array}$

7. $\begin{array}{r} 0.4 \\ + 0.9 \\ \hline \end{array}$

8. $\begin{array}{r} 0.5 \\ + 0.9 \\ \hline \end{array}$

Subtract.

9. $\begin{array}{r} 9 \text{ tenths} \\ - 3 \text{ tenths} \\ \hline \end{array}$

10. $\begin{array}{r} 1.0 \\ - 0.3 \\ \hline \end{array}$

11. $\begin{array}{r} 1.1 \\ - 0.3 \\ \hline \end{array}$

12. $\begin{array}{r} 1.2 \\ - 0.3 \\ \hline \end{array}$

13. $\begin{array}{r} 12 \text{ tenths} \\ - 4 \text{ tenths} \\ \hline \end{array}$

14. $\begin{array}{r} 1.2 \\ - 0.5 \\ \hline \end{array}$

15. $\begin{array}{r} 1.2 \\ - 0.6 \\ \hline \end{array}$

16. $\begin{array}{r} 1.2 \\ - 0.7 \\ \hline \end{array}$

PRACTICE

Add or subtract.

$$\begin{array}{r} 1. \quad 0.7 \\ + 0.7 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 0.9 \\ - 0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 1.3 \\ - 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 0.9 \\ + 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 0.3 \\ + 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 0.7 \\ - 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 1.2 \\ - 0.8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 0.8 \\ + 0.2 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 0.6 \\ + 0.5 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 1.7 \\ - 0.8 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 0.3 \\ + 0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 0.3 \\ + 0.8 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 1.4 \\ - 0.7 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 0.9 \\ + 0.9 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 1.5 \\ - 0.9 \\ \hline \end{array}$$

Draw a picture. Then solve.

16. 0.5 L of milk
0.5 L of orange juice
How much liquid?

17. 1.5 L of milk
0.5 L spilt
How much was left?

Un•ex•pect•ed Com•pan•y

What can you feed them?
Just double each recipe.

Don's Duck

0.5 BBQ duck
15 water chestnuts
0.8 package plum sauce

Marg's Muck

4.5 melted chocolates
28 sticky gumdrops
1.7 jars of nuts



Hundredths

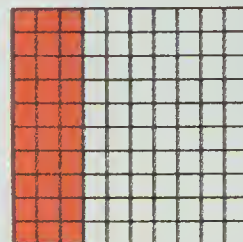
A whole divided into 10 equal parts requires tenths.



$$\frac{3}{10} = 0.3$$

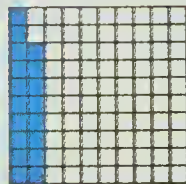
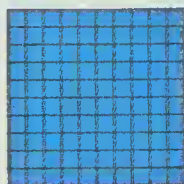
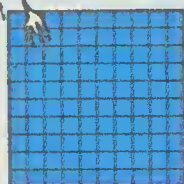
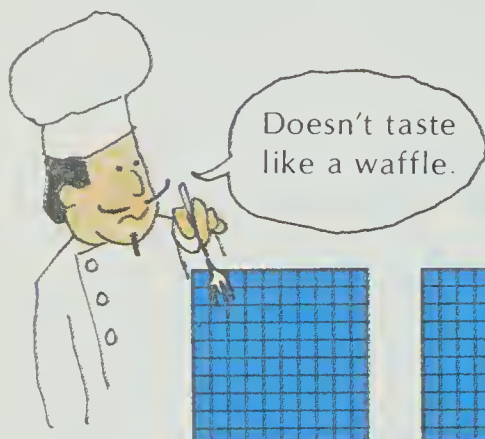
3 tenths

A whole divided into 100 equal parts requires **hundredths**.



$$\frac{30}{100} = 0.30$$

30 hundredths



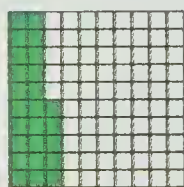
2.18

2 and 18 hundredths

EXERCISES

Complete the description.

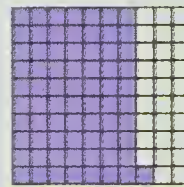
1.



$$\frac{25}{100} = \blacksquare.\blacksquare\blacksquare$$

\blacksquare hundredths

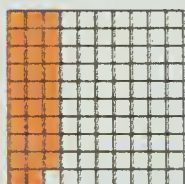
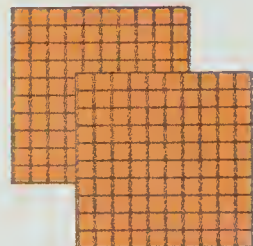
2.



$$\frac{\blacksquare}{\blacksquare} = \blacksquare.\blacksquare\blacksquare$$

\blacksquare hundredths

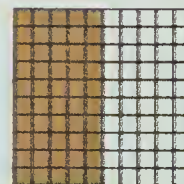
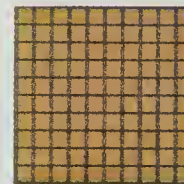
3.



$\blacksquare.\blacksquare\blacksquare$

2 and \blacksquare hundredths

4.



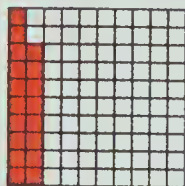
$\blacksquare.\blacksquare\blacksquare$

\blacksquare and \blacksquare hundredths

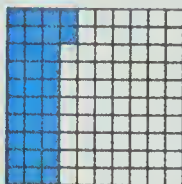
PRACTICE

Write the decimal. ■.■■■

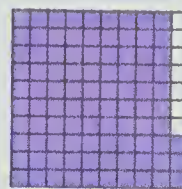
1.



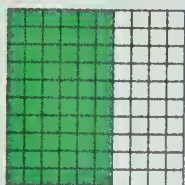
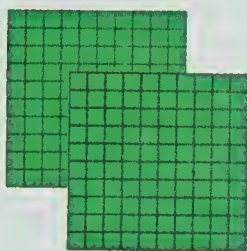
2.



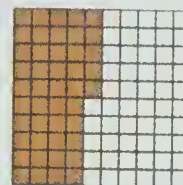
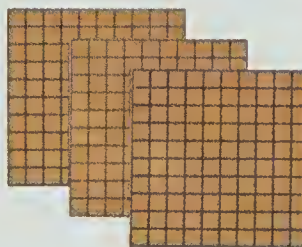
3.



4.



5.



6. 25 hundredths

7. 2 and 35 hundredths

8. 16 hundredths

9. 1 and 40 hundredths

10. 89 hundredths

11. 6 and 54 hundredths

12. $\frac{32}{100}$

13. $\frac{12}{100}$

14. $\frac{99}{100}$

15. $\frac{60}{100}$

16. $\frac{6}{100}$

Draw pictures to explain each equation.

17. 2 tenths = 20 hundredths

18. 0.40 = 0.4

Little by Little

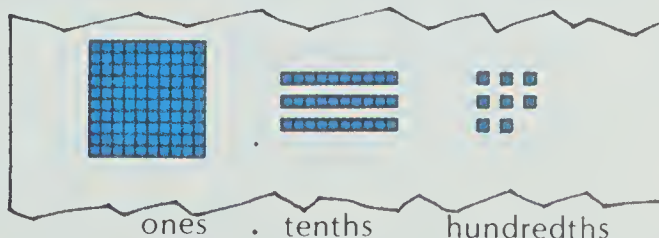
Count by hundredths.

1. from 1.38 to 1.55

2. from 4.10 to 4.25

3. from 0.95 to 1.15

4. from 5.85 to 6.05

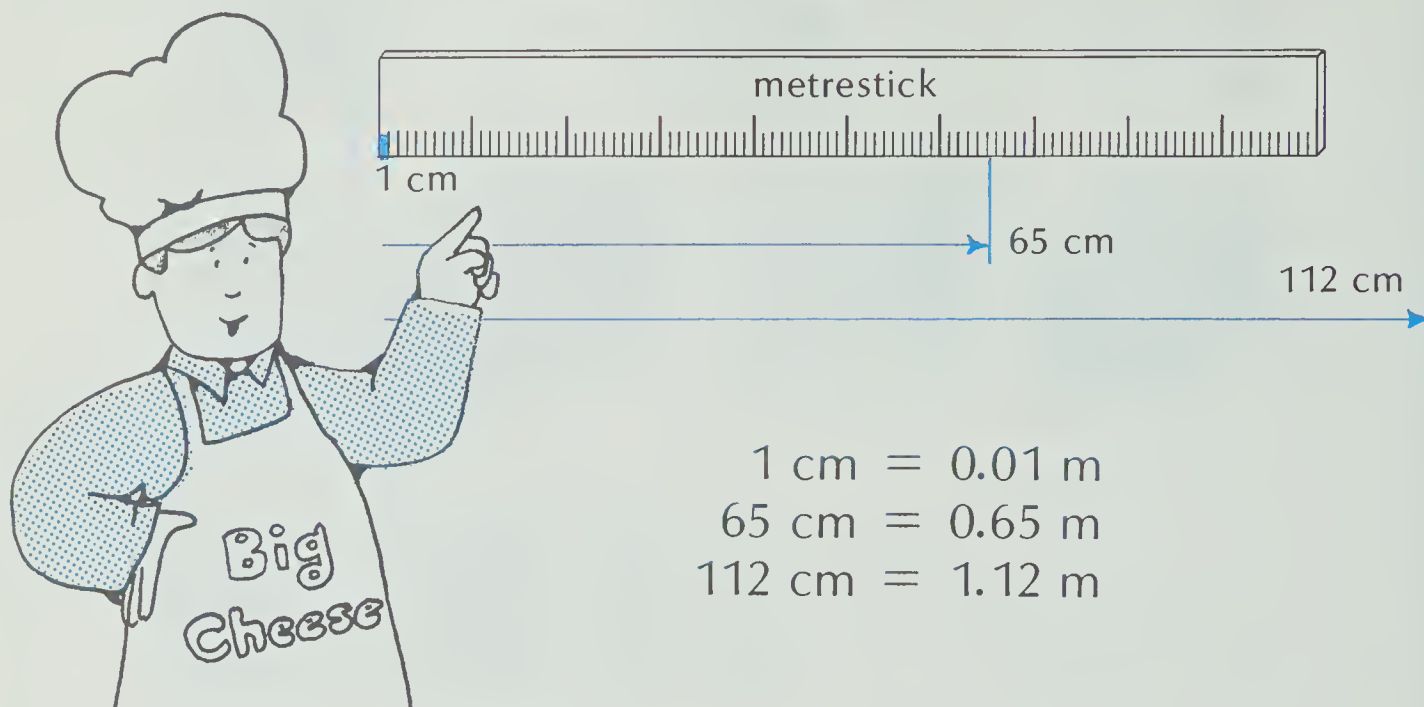


1	.	3	8
1	.	3	9
1	.	4	0

Centimetres as Hundredths

There are 100 cm in a metre.

A centimetre is one hundredth of a metre.



EXERCISES

Copy and complete the equation.

1. 3 cm = 0.0■ m

2. 7 cm = ■ m

3. 42 cm = 0.■■ m

4. 24 cm = ■ m

5. 153 cm = ■.■■ m

6. 406 cm = ■.■■ m

7. 375 cm = ■ m

8. 102 cm = ■ m

9. How many centimetres are in a metre?

10. A centimetre is what fraction of a metre?

11. A centimetre is what decimal of a metre?

Answer Box

$$\frac{1}{100}$$

200

$$0.10$$

$$\frac{1}{10}$$

$$100$$

$$0.01$$

PRACTICE

Change these measurements to metres.

1. 214 cm 2. 12 cm 3. 100 cm 4. 7 cm
5. 576 cm 6. 98 cm 7. 300 cm 8. 2 cm
9. 785 cm 10. 70 cm 11. 500 cm 12. 1 cm

Write these measurements as metres.

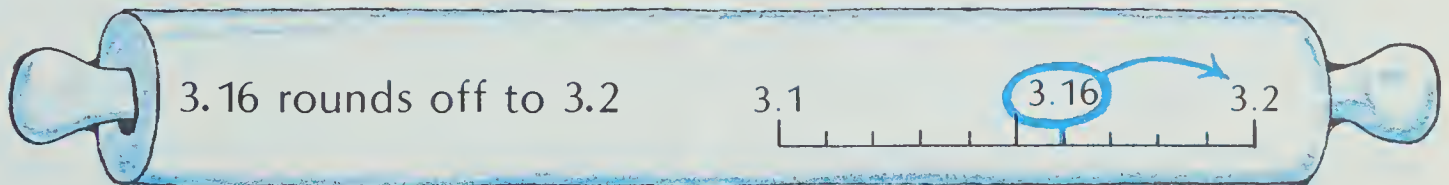
13. 1 m and 35 cm 14. 3 m and 84 cm 15. 4 m and 50 cm
16. 2 m and 6 cm 17. 3 m and 10 cm 18. 4 cm and 1 cm

19. Copy and complete the table.

	Estimate in metres	Measurement (your choice)	Measurement in metres
door height	■.■ ■		■.■ ■
window width	■.■ ■		■.■ ■
room length	■.■ ■		■.■ ■
room width	■.■ ■		■.■ ■

Kitchen Roundup

Round off these kitchen lengths to the **nearest tenth** of a metre.



		Between	Rounded Off
1. refrigerator height	1.61 m	1.6 m and 1.7 m	
2. counter length	2.36 m		
3. dish washer height	0.84 m		
4. sink width	0.52 m		
5. cabinet length	2.45 m		

Dollars and Cents

**P & S
Market**

Addition Review

$$\begin{array}{r} 1. \quad \$3.25 \\ + 4.15 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 2. \quad \$1.35 \\ + 4.85 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 3. \quad \$0.45 \\ + 2.83 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad \$3.88 \\ + 1.88 \\ \hline \end{array}$$

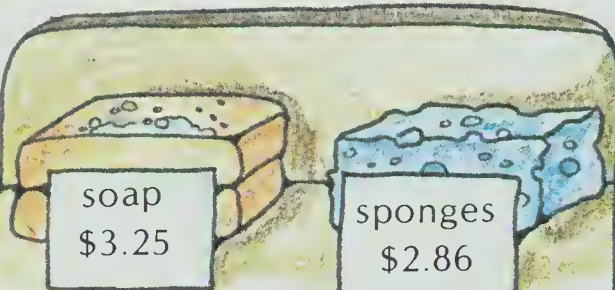
Subtraction Review

$$\begin{array}{r} 5. \quad \$4.86 \\ - 3.70 \\ \hline \$\square.\square\square \end{array}$$

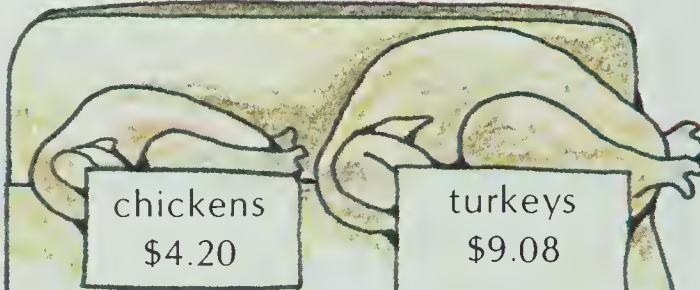
$$\begin{array}{r} 6. \quad \$6.25 \\ - 2.09 \\ \hline \$\square.\square\square \end{array}$$

$$\begin{array}{r} 7. \quad \$7.62 \\ - 0.98 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad \$7.04 \\ - 1.38 \\ \hline \end{array}$$



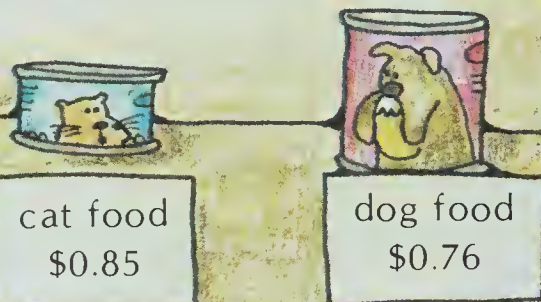
9. How much in all?



10. What is the difference?

11. How much more for beets?

12. What is the total cost?



13. How much for meat?

14. How much for juice?

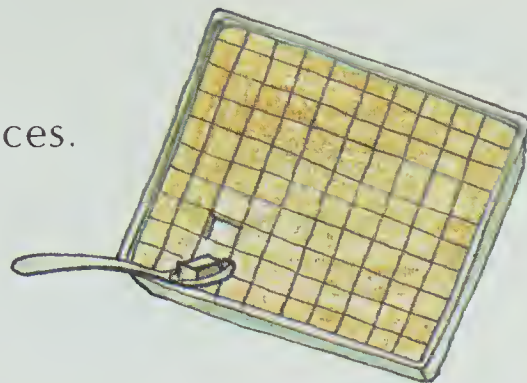


Pieces of Fudge

Brad cut a batch of fudge into 100 pieces.

One piece is 0.01 of a batch.

Brad charges \$0.01 (one cent) for each piece of fudge.




Complete Brad's sale sign.

Sale

1. 1 piece	0.01 of a batch costs \$.
2. 4 pieces	 . of a batch costs \$.
3. 15 pieces	 . of a batch costs \$.
4. 60 pieces	 . of a batch costs \$.
5. 235 pieces	 . batches cost \$.
6. 100 pieces	 . batch costs \$.

REVIEW

Choose the better answer.

- | | | |
|---|--|--|
| M17
1. L
metre or litre? | 2. 
0.1 L or 1 L? | 3. $\frac{1}{2}$
0.5 or 5.0? |
|---|--|--|

Add or subtract.

- | | | | |
|--|--|--|--|
| A55
4. $\begin{array}{r} 0.5 \\ + 0.4 \\ \hline \end{array}$ | 5. $\begin{array}{r} 0.6 \\ + 0.5 \\ \hline \end{array}$ | 6. $\begin{array}{r} 0.8 \\ - 0.3 \\ \hline \end{array}$ | 7. $\begin{array}{r} 1.2 \\ - 0.9 \\ \hline \end{array}$ |
|--|--|--|--|

Write the decimal.

- | | | | |
|-----------------------------------|---------------------|----------------------|---------------------|
| N16
8. $\frac{25}{100}$ | 9. $\frac{18}{100}$ | 10. $\frac{10}{100}$ | 11. $\frac{3}{100}$ |
|-----------------------------------|---------------------|----------------------|---------------------|

Write as metres.

- | | | | |
|--------------------------|------------|-----------|----------|
| M18
12. 100 cm | 13. 200 cm | 14. 85 cm | 15. 5 cm |
|--------------------------|------------|-----------|----------|

TEST

UNIT 14

Write the decimal.

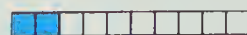
1. $\frac{5}{10}$

2. one tenth

3.



4.



5. six and four tenths

6.



7.



8. Which is greater?

3.6 or 6.3

9. Put these in order.

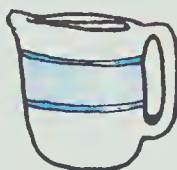
0.7, 2.4, 2.7, 0.4

Does it hold closer to 0.5 L or 1.0 L?

10.



11.



12.



13.



Add or subtract.

14.
$$\begin{array}{r} 0.4 \\ + 0.2 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 0.4 \\ + 0.8 \\ \hline \end{array}$$

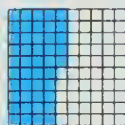
16.
$$\begin{array}{r} 0.5 \\ - 0.2 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 1.0 \\ - 0.7 \\ \hline \end{array}$$

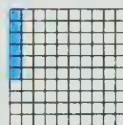
Write the decimal.

18. $\frac{17}{100}$

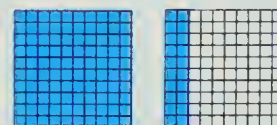
19.



20.



21.



Change to metres. ■.■ m

22. 43 cm

23. 250 cm

24. 3 m and 18 cm

Add or subtract.

25.
$$\begin{array}{r} \$3.72 \\ + 1.19 \\ \hline \end{array}$$

26.
$$\begin{array}{r} \$7.23 \\ - 0.82 \\ \hline \end{array}$$

27.
$$\begin{array}{r} \$4.56 \\ + 2.58 \\ \hline \end{array}$$

28.
$$\begin{array}{r} \$5.00 \\ - 1.25 \\ \hline \end{array}$$

DIVISION

Divide.

1. $24 \div 4$
2. $4 \overline{)6}$
3. $15 \div 3$
4. $3 \overline{)15}$
5. $5 \overline{)9}$
6. $2 \overline{)13}$
7. $4 \overline{)35}$
8. $3 \overline{)11}$
9. $6 \overline{)36}$
10. $6 \overline{)18}$
11. $6 \overline{)48}$
12. $6 \overline{)54}$
13. $7 \overline{)21}$
14. $7 \overline{)42}$
15. $7 \overline{)43}$
16. $7 \overline{)56}$

Copy and complete the tables.

17.

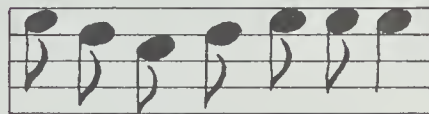
\div	8
40	
64	
56	
24	
72	

18.

\div	9
36	
63	
45	
54	
27	

If you have 42 notes, how many bars of music can you make?

19. 6 notes in each bar
20. 7 notes in each bar
21. 8 notes in each bar
22. 9 notes in each bar



UNIT 15

MULTIPLICATION



Knock Knock



49	56	24	0	48
----	----	----	---	----

45	54	48
----	----	----

18	72	12	12	48	32
----	----	----	----	----	----

54	49	56	24	7	21	36	18	!
----	----	----	----	---	----	----	----	---

Multiply and decode the message.

A. 3×7

B. 2×8

C. 5×5

D. 7×1

E. 6×8

F. 3×9

G. 4×5

H. 9×6

I. 4×6

J. 7×5

K. 6×6

L. 8×7

M. 3×4

N. 8×5

O. 7×7

P. 6×7

R. 4×8

S. 3×6

T. 5×9

U. 9×8

V. 0×7

W. 7×9

Y. 9×4

Z. 8×8

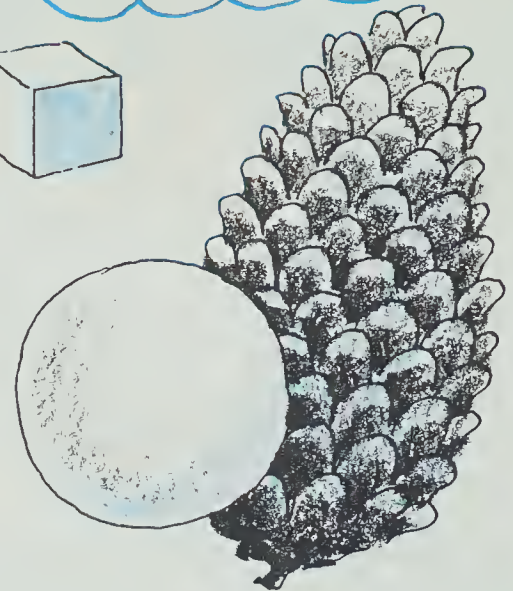
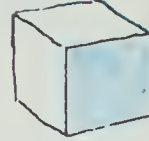
Volume

The **volume** of a solid is a measure of its inside space.

Sometimes you must pretend the solid is hollow.

A pine cone would hold about 20 sugar cubes.

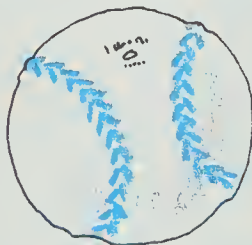
A ping pong ball would hold about 8 sugar cubes.



EXERCISES

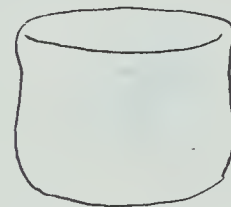
Estimate the **volume** for each.

1. 3 or 30 sugar cubes



softball

2. 9 or 90 sugar cubes



marshmallow

3. a pan



4. a runner



5. a tent



60 or 600 pine cones

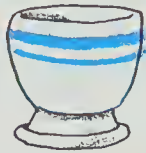
5 or 50 pine cones

90 or 9000 pine cones

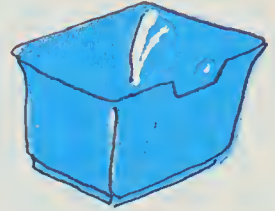
PRACTICE

Estimate and measure the volume of each.
Use the sugar cube as the unit.

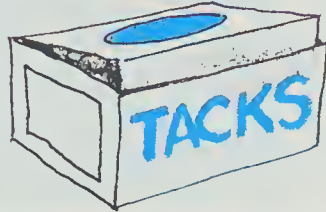
1. egg cup



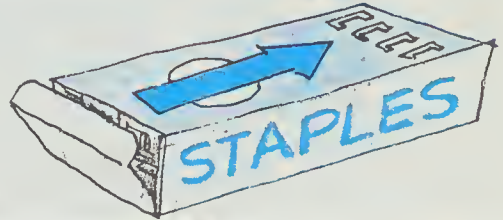
2. ice cube cup



3. tacks box

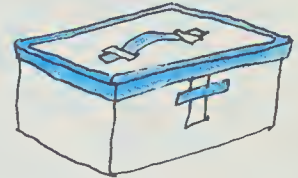


4. staples box

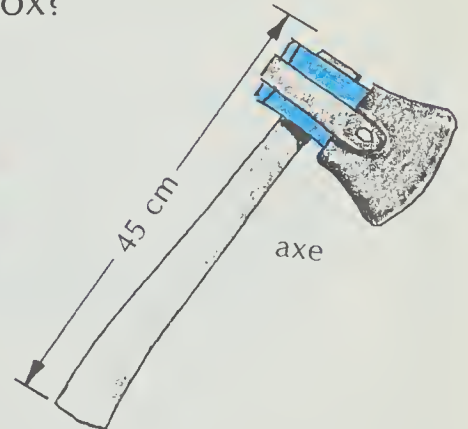
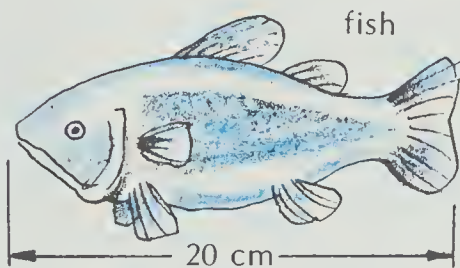
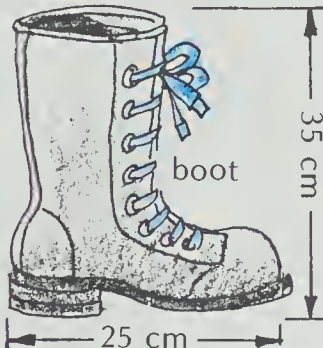


Bigger than a Bread Box

Mr. Brown has a camping bread box
15 cm wide, 30 cm long, and 20 cm tall. His small
brown bread just fits inside the **15 cm by 30 cm by 20 cm** box.



1. Which items will fit in Mr. Brown's bread box?



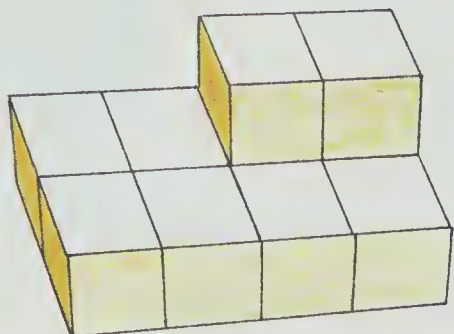
Will Mr. Brown's brown bread fit inside these?

2. a 30 cm by 30 cm by 5 cm box
3. a 30 cm by 20 cm by 25 cm box
4. a 20 cm by 10 cm by 20 cm box
5. a 20 cm by 30 cm by 15 cm box

Finding Volume

You measure area in square centimetres.

You measure volume in **cubic centimetres**.



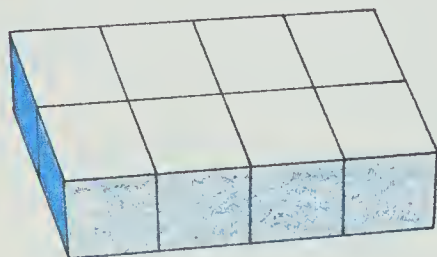
A **cubic centimetre**
is 1 cm wide
1 cm long, and
1 cm tall.

The volume of the yellow solid
is 10 cubic centimetres.

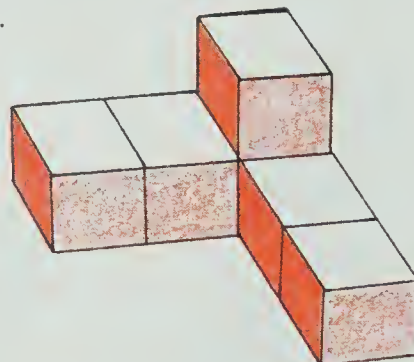
EXERCISES

Give the volume in cubic centimetres.

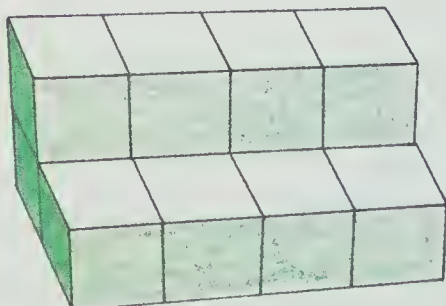
1.



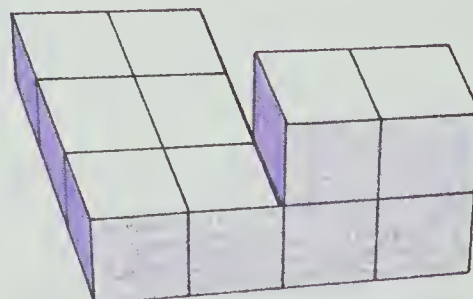
2.



3.

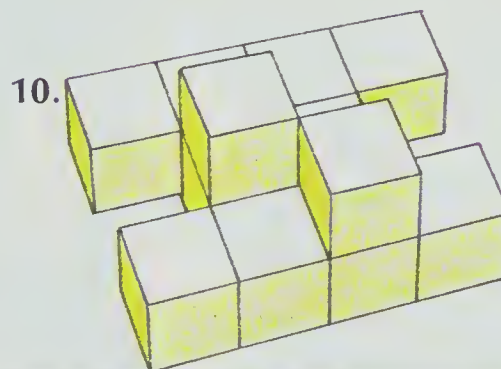
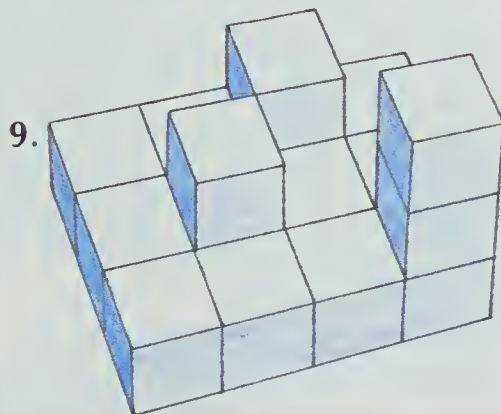
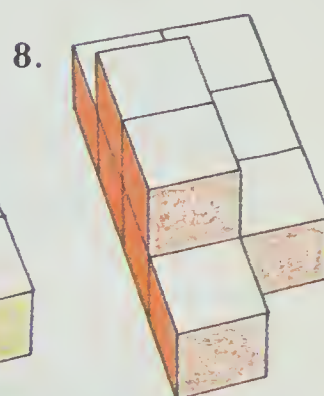
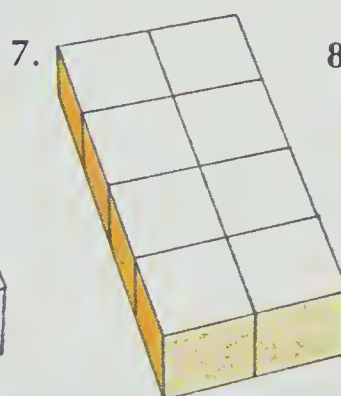
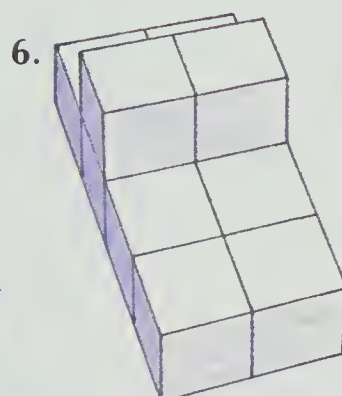
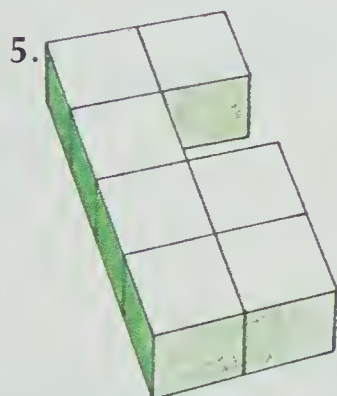
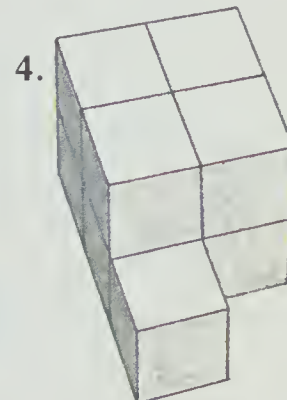
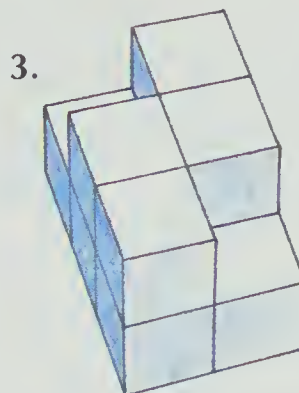
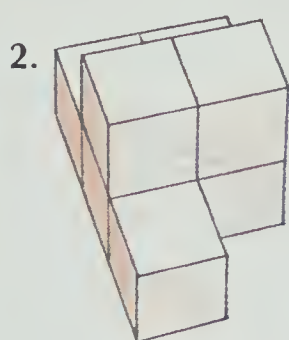
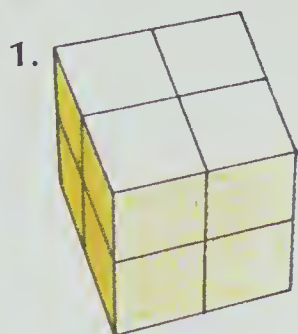


4.



PRACTICE

Give the volume in cubic centimetres.



Betty Brackets

Find the product.

1. $(3 \times 4) \times 2$

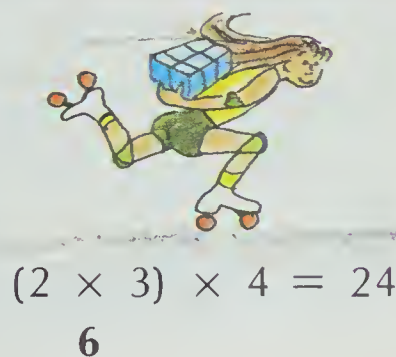
2. $5 \times (2 \times 4)$

3. $(3 \times 3) \times 5$

4. $3 \times (2 \times 2)$

5. $(1 \times 6) \times 7$

6. $8 \times (3 \times 2)$

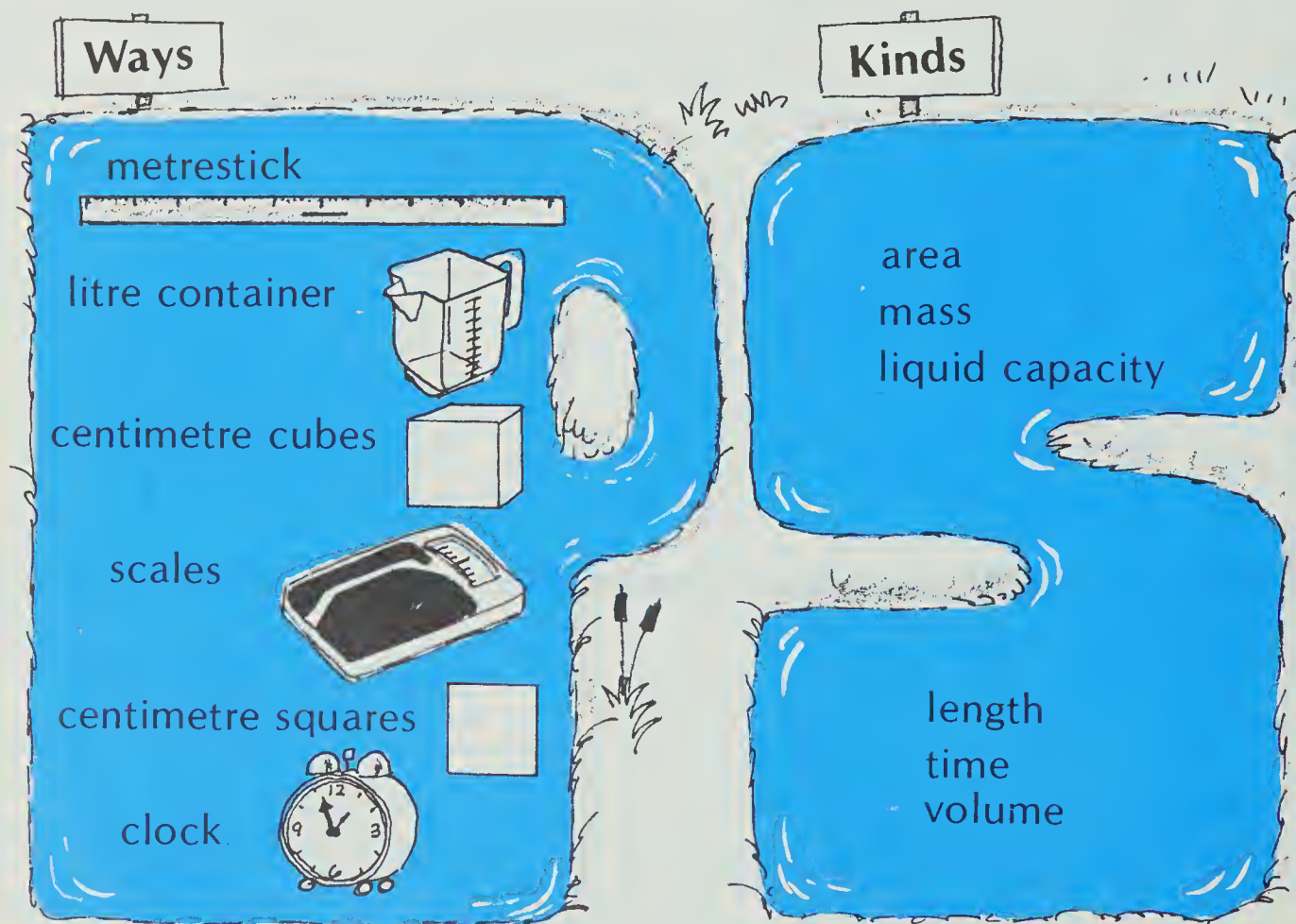


Measurement Choices

Mary measured things at camp.

For each sentence choose a **kind** of measurement and a **way** for measuring.

1. Mary hiked for 40 minutes around a lake.
2. She found a one-kilogram rabbit.
3. The rabbit could jump 35 cm.
4. It had a spot covering 13 square centimetres.
5. Mary put *Spot* in an 8000 cubic centimetre box.
6. *Spot* drank 0.1 L of water before escaping.



Operation Choices




Choose **addition**, **subtraction**, **multiplication**, or **division**.

Find the answer.

1.

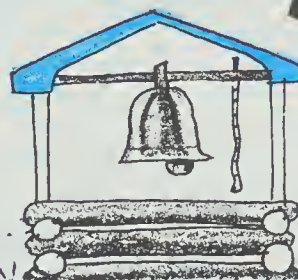
The children came to camp in 7 cars. Each car held 6 children. How many children came?

2.

Sukhjot caught 37 , 17 , and 53 . How many bugs did he catch in all?

3.

Aaron brought \$1.36. He lost 48¢ in the pond. How much was left?



4.

The 36 boys split into 9 teams. How many were on each team?

5.

Fran took three 8-minute rests. How long did she rest?

6.

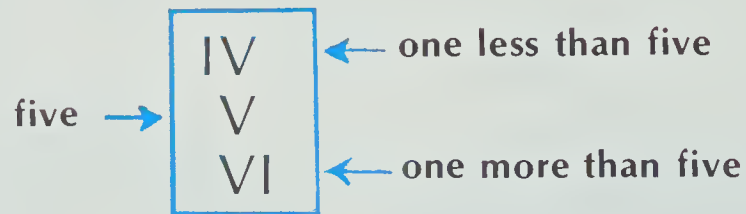
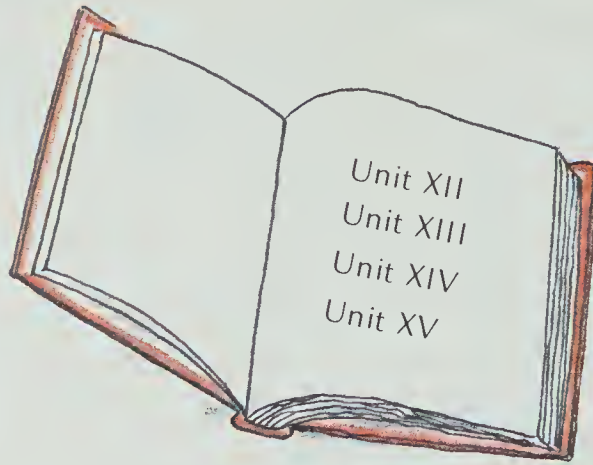
The cake covered 910 square centimetres. In 2 minutes, 735 square centimetres was gone. How much was left?

7.

Seven girls shared a 49 cubic centimetre box of raisins. How much did each girl get?

Roman Numerals

You may have seen **Roman numerals** on clocks or in books.



EXERCISES

Give the numeral in standard form.

- | | | | | |
|--------|-------|---------|-------|---------|
| 1. III | 2. V | 3. X | 4. IV | 5. VI |
| 6. IX | 7. XI | 8. VIII | 9. XI | 10. XII |

Give the Roman numeral.

- | | | | | |
|-------|-------|-------|-------|--------|
| 11. 2 | 12. 1 | 13. 5 | 14. 7 | 15. 10 |
| 16. 8 | 17. 4 | 18. 9 | 19. 6 | 20. 11 |

PRACTICE

1. Is VI one less or one more than V?
2. Is IX one less or one more than X?
3. Is XV five less or five more than X?

Make a good guess.

4. XV 105 or 15 or 10 or 5
5. XVI 1051 or 151 or 16 or 14
6. XIV 101 or 115 or 16 or 14
7. XX 0 or 210 or 20 or 2
8. XIX 111 or 19 or 1010 or 1

Copy and complete the equations.

9. VII + I = ■

10. III + IV = ■

REVIEW

M19

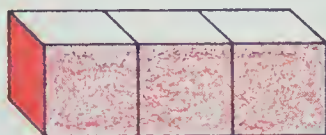
Does it suggest **volume** or **area**?

1. a box
2. a circle
3. a ball
4. a triangle

M20

5. A centimetre cube is ■ wide, ■ long, and ■ tall.

6.



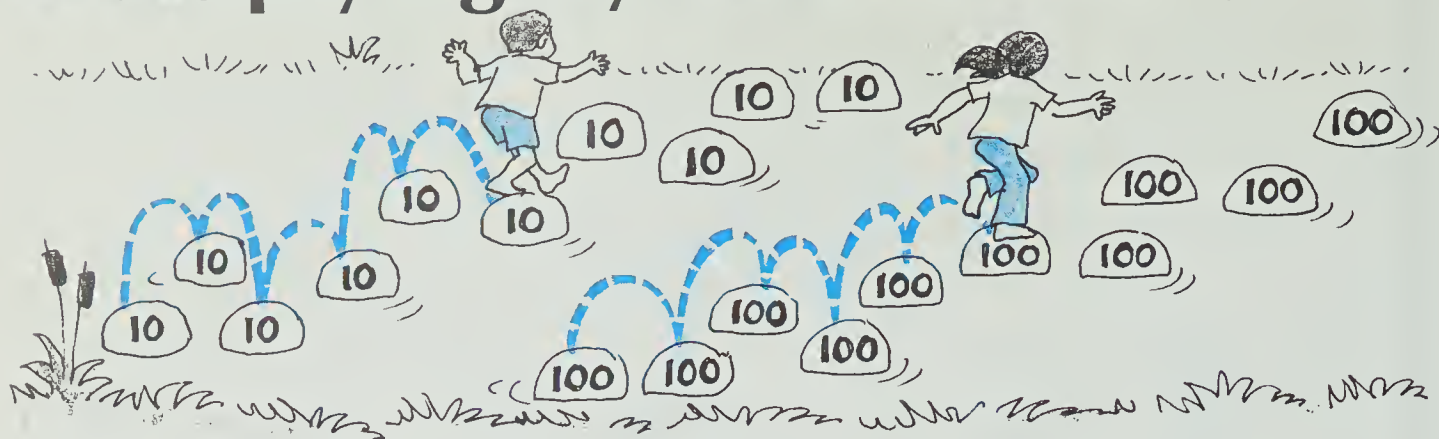
■ cubic centimetres

N17

Give the numeral in standard form.

7. V
8. X
9. VI
10. IX

Multiplying by 10 and 100



Lonnie and Laurie are rock jumping.

Lonnie counts by tens. Laurie counts by hundreds.

How far has each counted?

$$6 \text{ tens} = 60$$

$$6 \times 10 = 60$$

$$6 \text{ hundreds} = 600$$

$$6 \times 100 = 600$$

Lonnie has counted to 60.

Laurie has counted to 600.

EXERCISES

1. Count by tens to a hundred.
2. Count by hundreds to a thousand.

Copy and complete.

3. 1 ten = ■ 4. 3 tens = ■ 5. 5 tens = ■

6. $1 \times 10 = \blacksquare$ 7. $3 \times 10 = \blacksquare$ 8. $5 \times 10 = \blacksquare$


9. 2 hundreds = ■ 10. 4 hundreds = ■

11. 6 hundreds = ■ 12. $2 \times 100 = \blacksquare$

13. $4 \times 100 = \blacksquare$ 14. $6 \times 100 = \blacksquare$

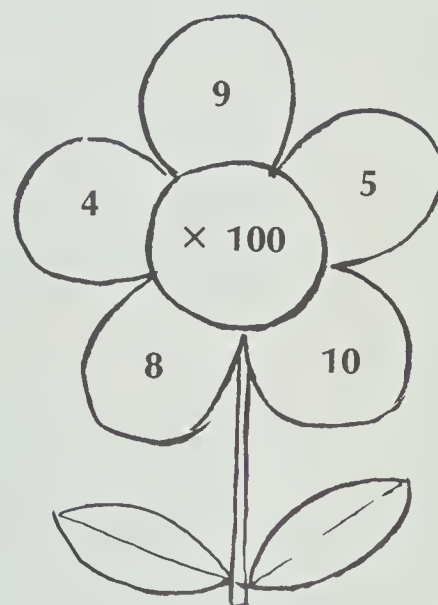
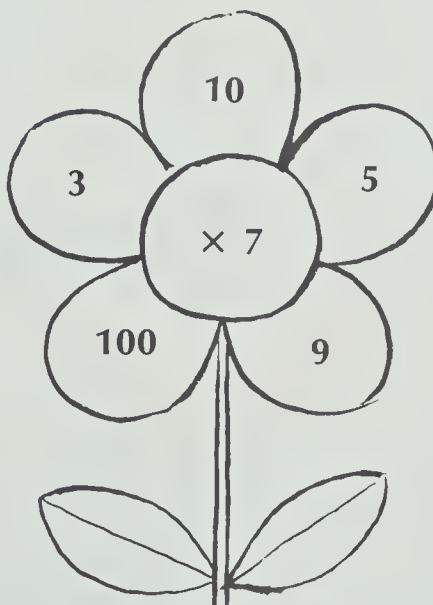
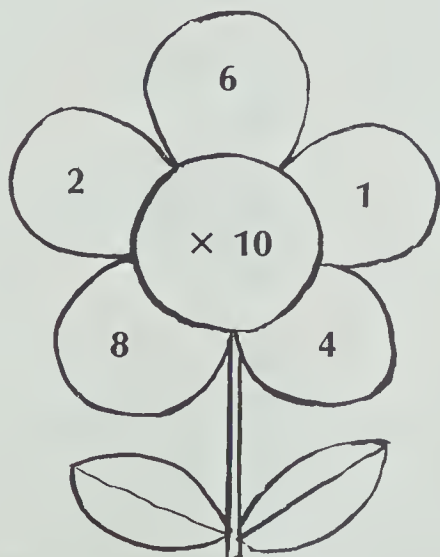
PRACTICE

Multiply. Study the patterns.

1. 2×1
 2×10
 2×100
2. 7×1
 7×10
 7×100
3. 4×1
 4×10
 4×100
4. 10×1
 10×10
 10×100
5. 3×10
6. 7×10
7. 8×10
8. 6×10
9. 5×100
10. 4×100
11. 7×100
12. 1×100
13. 8×100
14. 5×10
15. 9×10
16. 3×100
17. $\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$ 
18. $\begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$
19. $\begin{array}{r} 100 \\ \times 5 \\ \hline \end{array}$
20. $\begin{array}{r} 100 \\ \times 8 \\ \hline \end{array}$

Multiplication Flowers

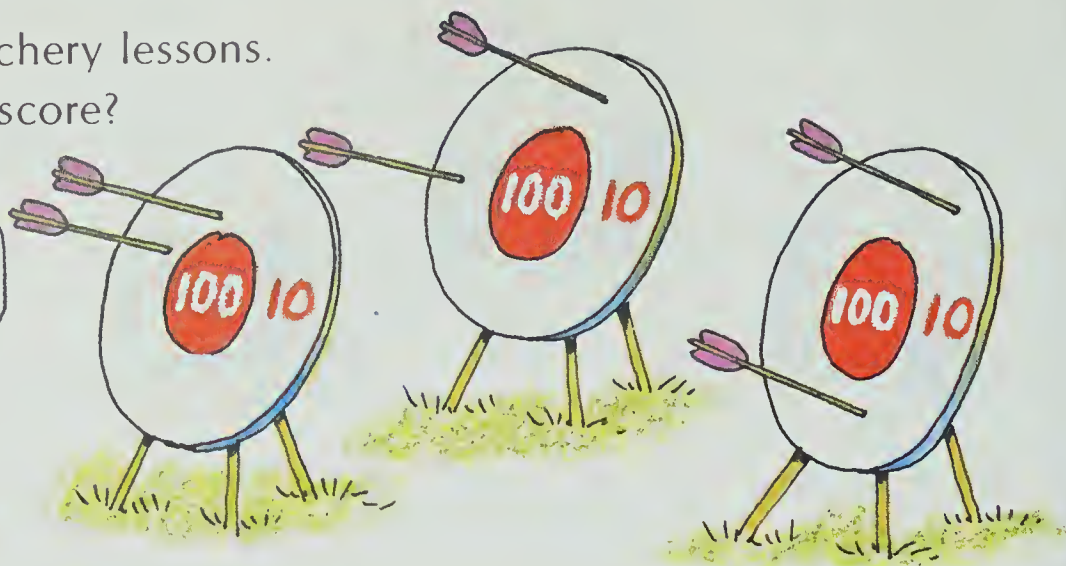
Copy and complete.



Multiplying by Tens

Jenny is taking archery lessons.
What is her total score?

Wow! I made
3 groups of 2 tens.



$$3 \times 2 \text{ tens} = 6 \text{ tens}$$

$$3 \times 20 = 60$$

Jenny scored 60 in all.

EXERCISES

Copy and complete.

1. $6 \times 2 \text{ tens} = \blacksquare \text{ tens}$
 $6 \times 20 = \blacksquare$

2. $3 \times 3 \text{ tens} = \blacksquare \text{ tens}$
 $3 \times 30 = \blacksquare$

3. $5 \times 3 \text{ tens} = \blacksquare \text{ tens}$
 $5 \times 30 = \blacksquare$

4. $4 \times 6 \text{ tens} = \blacksquare \text{ tens}$
 $4 \times 60 = \blacksquare$

5. $1 \text{ ten} \times 7 = \blacksquare \text{ tens}$
 $10 \times 7 = \blacksquare$

6. $5 \text{ tens} \times 9 = \blacksquare \text{ tens}$
 $50 \times 9 = \blacksquare$

7. $4 \times 50 = \blacksquare$

8. $50 \times 6 = \blacksquare$

PRACTICE

Multiply. Study the pattern.

1. 4×2
 4×20

2. 2×3
 2×30

3. 3×6
 3×60

4. 6×9
 6×90

5. 4×70

6. 5×40

7. 8×50

8. 7×70

9. $\begin{array}{r} 30 \\ \times 7 \\ \hline \end{array}$

10. $\begin{array}{r} 80 \\ \times 6 \\ \hline \end{array}$

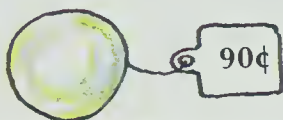
11. $\begin{array}{r} 70 \\ \times 8 \\ \hline \end{array}$

12. $\begin{array}{r} 50 \\ \times 8 \\ \hline \end{array}$

Solve.

13. How much for 3 balls?

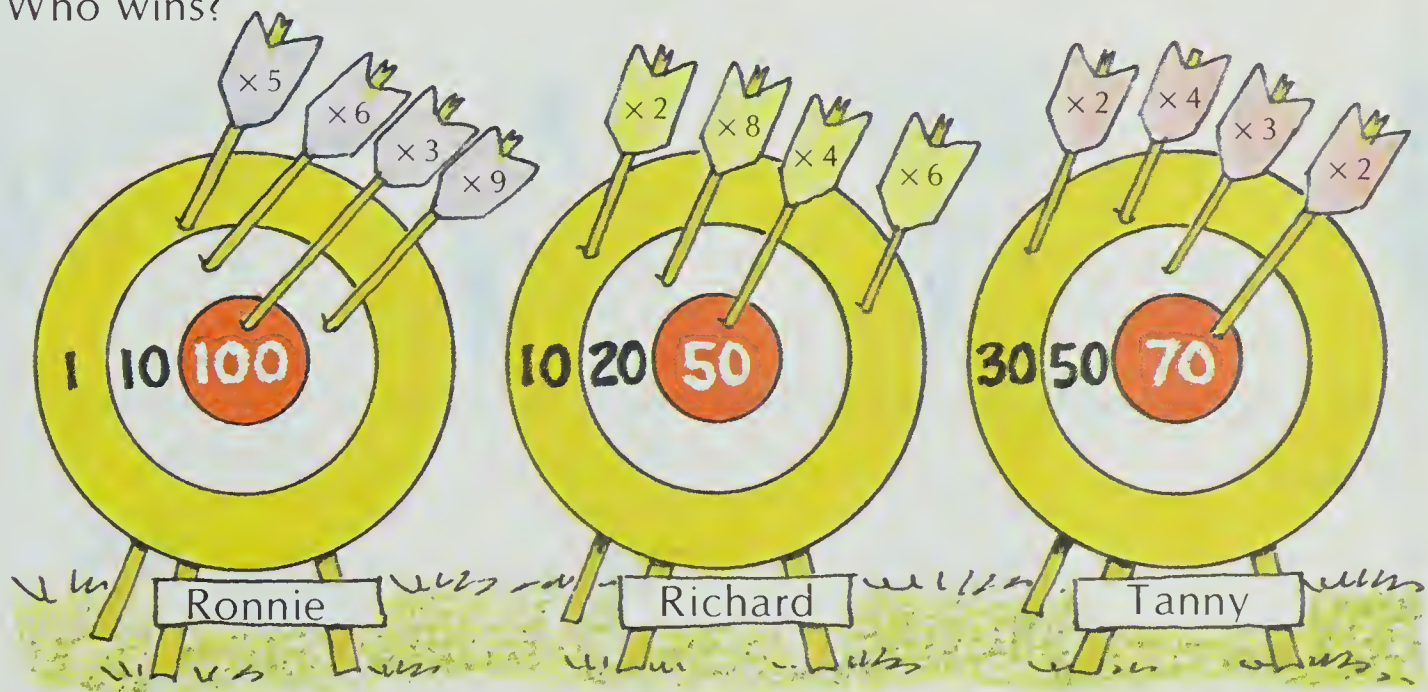
14. How much for 6 bottles?



Archery Aces

Find the value of each arrow. Add the values for each target.

Who wins?



Two-Place Multiplication

Picnic List

3 packages of hot dogs
12 hot dogs in each package
How many hot dogs in all?

Add. or Multiply.

12	
12	12
<u>+ 12</u>	<u>× 3</u>
36	?

Multiply the ones.

tens	ones
1	2
×	3
<hr/>	
	6

Multiply the tens.

tens	ones
1	2
×	3
<hr/>	
3	6

There are 36 hot dogs in all.

EXERCISES

Add and multiply.

1.

		.	21
		.	21
		.	21
			<u>+ 21</u>
			<u>× 3</u>

2.

	.	.	.	13
	.	.	.	13
	.	.	.	13
				<u>+ 13</u>
				<u>× 3</u>

3.

			.	.	32
			.	.	32
					<u>+ 32</u>
					<u>× 2</u>

4.

				.	.	.	43
				.	.	.	43
							<u>+ 43</u>
							<u>× 2</u>

5.

	.	11
	.	11
	.	11
		<u>+ 11</u>
		<u>× 4</u>

6.

		.	21
		.	21
		.	21
			<u>+ 21</u>
			<u>× 4</u>

PRACTICE

Multiply.

1.

tens	ones
2	3
×	2

2.

tens	ones
3	1
×	3

3.

tens	ones
1	1
×	7

4.

tens	ones
3	2
×	4

5.

tens	ones
4	3
×	2

6.

tens	ones
1	2
×	4

7.

tens	ones
3	2
×	3

8.

tens	ones
1	1
×	5

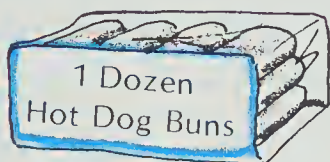
9.
$$\begin{array}{r} 44 \\ \times 2 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 21 \\ \times 2 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 13 \\ \times 2 \\ \hline \end{array}$$

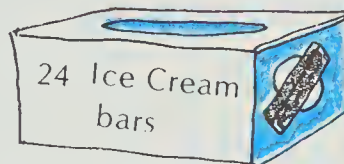
12.
$$\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$$

13.



How many buns in 4 dozen?

14.



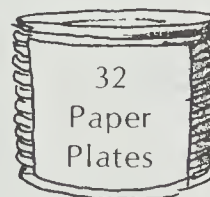
How many bars in 2 boxes?

15.



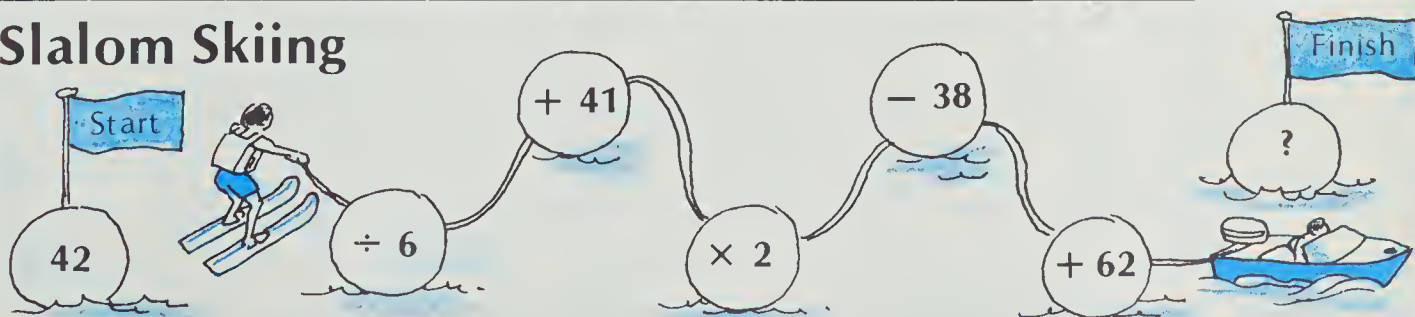
How many cookies in 3 packages?

16.



How many plates in 4 packages?

Slalom Skiing



Two-Place Multiplication

Picnic List

3 cases of juice

24 cans in each case

How many cans of juice in all?

Add. or Multiply.

$$\begin{array}{r} 24 \\ 24 \\ + 24 \\ \hline 72 \end{array} \qquad \begin{array}{r} 24 \\ \times 3 \\ \hline ? \end{array}$$

Multiply the ones.
Regroup 12 ones as
1 ten 2 ones.

tens	ones
1	
2	4
×	3
	2

Multiply the tens.
Add 6 tens *and* 1 ten.

tens	ones
1	
2	4
×	3
7	2

There are 72 cans of juice in all.

EXERCISES

Add and multiply.

- | | | | |
|---|---|--|---|
| 1. $\begin{array}{r} 17 \\ 17 \\ + 17 \\ \hline \end{array}$ | 2. $\begin{array}{r} 2 \\ 17 \\ \times 3 \\ \hline 1 \end{array}$ | 3. $\begin{array}{r} 25 \\ 25 \\ + 25 \\ \hline \end{array}$ | 4. $\begin{array}{r} 1 \\ 25 \\ \times 3 \\ \hline 5 \end{array}$ |
| 5. $\begin{array}{r} 14 \\ 14 \\ 14 \\ + 4 \\ \hline \end{array}$ | 6. $\begin{array}{r} 1 \\ 14 \\ \times 4 \\ \hline 6 \end{array}$ | 7. $\begin{array}{r} 18 \\ 18 \\ 18 \\ + 18 \\ \hline \end{array}$ | 8. $\begin{array}{r} 3 \\ 18 \\ \times 4 \\ \hline 2 \end{array}$ |

PRACTICE

Multiply.

$$\begin{array}{r|l} \text{tens} & \text{ones} \\ 1. & \begin{array}{r} 15 \\ \times 5 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r|l} \text{tens} & \text{ones} \\ 2. & \begin{array}{r} 16 \\ \times 6 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r|l} \text{tens} & \text{ones} \\ 3. & \begin{array}{r} 17 \\ \times 4 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r|l} \text{tens} & \text{ones} \\ 4. & \begin{array}{r} 28 \\ \times 3 \\ \hline \end{array} \end{array}$$

$$5. \begin{array}{r} 24 \\ \times 4 \\ \hline \end{array}$$

$$6. \begin{array}{r} 29 \\ \times 3 \\ \hline \end{array}$$

$$7. \begin{array}{r} 18 \\ \times 3 \\ \hline \end{array}$$

$$8. \begin{array}{r} 19 \\ \times 4 \\ \hline \end{array}$$

$$9. \begin{array}{r} 26 \\ \times 3 \\ \hline \end{array}$$

$$10. \begin{array}{r} 25 \\ \times 3 \\ \hline \end{array}$$

$$11. \begin{array}{r} 38 \\ \times 2 \\ \hline \end{array}$$

$$12. \begin{array}{r} 46 \\ \times 2 \\ \hline \end{array}$$

How many eggs?

13. 1 dozen

14. 3 dozen

15. 5 dozen

16. 6 dozen

REVIEW

Multiply.

A56

$$1. \begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

$$2. \begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$

$$3. \begin{array}{r} 100 \\ \times 7 \\ \hline \end{array}$$

$$4. \begin{array}{r} 100 \\ \times 5 \\ \hline \end{array}$$

A57

$$5. \begin{array}{r} 80 \\ \times 2 \\ \hline \end{array}$$

$$6. \begin{array}{r} 40 \\ \times 6 \\ \hline \end{array}$$

$$7. \begin{array}{r} 60 \\ \times 7 \\ \hline \end{array}$$

$$8. \begin{array}{r} 80 \\ \times 9 \\ \hline \end{array}$$

A58

$$9. \begin{array}{r} 42 \\ \times 2 \\ \hline \end{array}$$

$$10. \begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$$

$$11. \begin{array}{r} 23 \\ \times 3 \\ \hline \end{array}$$

$$12. \begin{array}{r} 12 \\ \times 4 \\ \hline \end{array}$$

A59

$$13. \begin{array}{r} 19 \\ \times 5 \\ \hline \end{array}$$

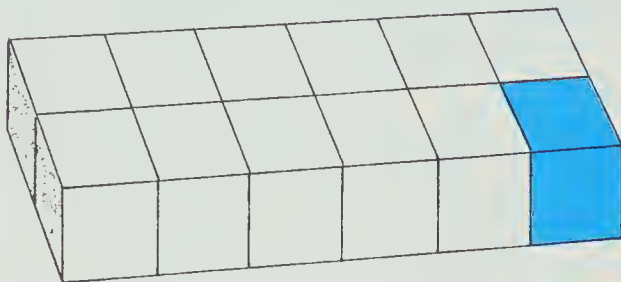
$$14. \begin{array}{r} 37 \\ \times 2 \\ \hline \end{array}$$

$$15. \begin{array}{r} 26 \\ \times 3 \\ \hline \end{array}$$

$$16. \begin{array}{r} 23 \\ \times 4 \\ \hline \end{array}$$

Does it suggest **volume** or **area**?

1. an eraser 2. a stamp 3. a picture 4. a cube
5. What is the volume?



one cubic centimetre

6. What is the Roman numeral **X** in standard form?

Multiply.

7. 8×10

8. 7×100

9. 10×5

10. 100×2

11. 3×60

12. 20×8

13. 9×70

14. 60×7

$$\begin{array}{r} 15. \quad 23 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 41 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 12 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 32 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 18 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 39 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad 27 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad 16 \\ \times 5 \\ \hline \end{array}$$

Solve.

23. 4 rolls
19 zoo tickets on each
How many tickets in all?

24. 6 cages
23 monkeys in each
How many monkeys in all?

DECIMALS

Write the fraction.

1.



2.



3.



Write as a decimal.

4. $\frac{1}{10}$

5. $\frac{3}{10}$



7. 2 tenths

8. 10 tenths



Which is greater?

10. $\frac{1}{4}$ or $\frac{3}{4}$

12. $\frac{2}{3}$ or $\frac{1}{3}$

13. $\frac{4}{10}$ or $\frac{5}{10}$

14. 0.3 or 0.2

15. 1.3 or 2.0

16. 1.4 or 1.2

Add.

17.
$$\begin{array}{r} 0.3 \\ + 0.4 \\ \hline \end{array}$$

18.
$$\begin{array}{r} 0.7 \\ + 0.6 \\ \hline \end{array}$$

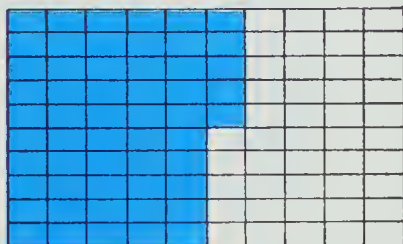
Subtract.

19.
$$\begin{array}{r} 0.9 \\ - 0.3 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 1.6 \\ - 0.9 \\ \hline \end{array}$$

Write as a decimal.

21.



22. 31 hundredths

23. 6 hundredths

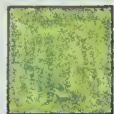
24. 3 m and 24 cm

Pick the best name from the list.

1.



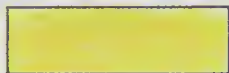
2.



3.



4.



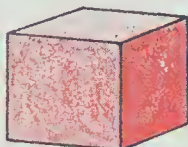
5.



6.



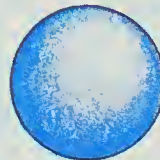
7.



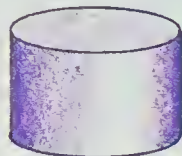
8.



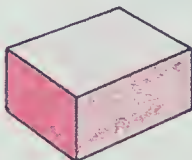
9.



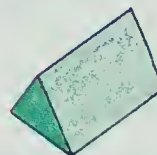
10.



11.



12.



box
circle
cone
cube
cylinder
point
prism
rectangle
segment
sphere
square
triangle

13. Which have no corners?
14. Which solid has 2 edges?
15. Which two solids have 8 corners each?
16. Which solid has 5 faces?

Write **different**, **same shape**, or **same shape and size**.

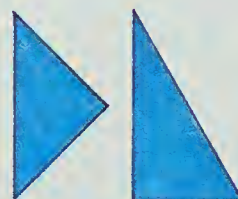
17.



18.

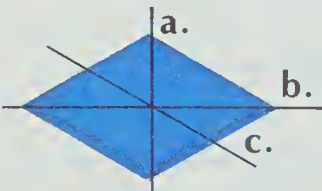


19.

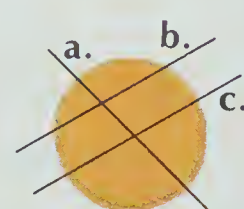


Which are lines of symmetry?

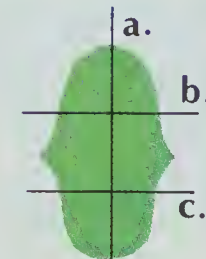
20.



21.



22.



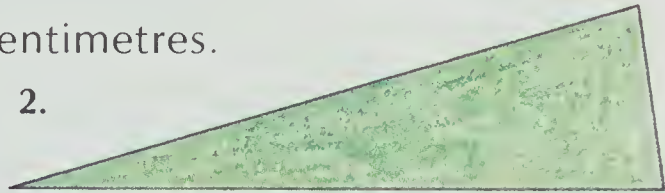
MEASUREMENT

Find the length or perimeter in centimetres.

1.



2.



Complete each equation.

3. $1 \text{ m} = \blacksquare \text{ cm}$

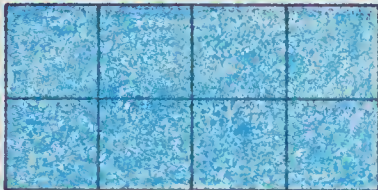
4. $1 \text{ km} = \blacksquare \text{ m}$

5. $1 \text{ kg} = \blacksquare \text{ g}$

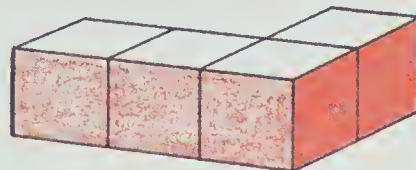
6. $105 \text{ cm} = \blacksquare.\blacksquare\blacksquare \text{ m}$

7. $3 \text{ m and } 24 \text{ cm} = \blacksquare.\blacksquare\blacksquare \text{ m}$

8. How many square centimetres?

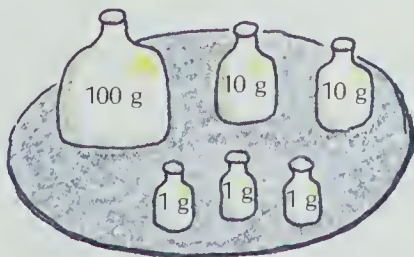


9. How many cubic centimetres?



Complete each measurement.

10.



\blacksquare grams

11.



$\blacksquare:\blacksquare\blacksquare$

12.



$\blacksquare^\circ\text{C}$

Cumulative Test

UNITS 1-5

Add.

1. $\begin{array}{r} 7 \\ + 4 \\ \hline \end{array}$

2. $\begin{array}{r} 3 \\ + 9 \\ \hline \end{array}$

3. $\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$

4. $\begin{array}{r} 2 \\ + 8 \\ \hline \end{array}$

5. $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$

6. $30 + 2$

7. $40 + 9$

8. $8 + 20$

Find the perimeters.

9.



10.



Subtract.

11. $\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$

12. $\begin{array}{r} 16 \\ - 8 \\ \hline \end{array}$

13. $\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$

14. $\begin{array}{r} 13 \\ - 5 \\ \hline \end{array}$

15. $\begin{array}{r} 12 \\ - 4 \\ \hline \end{array}$

Complete the equation.

16. $1 \text{ m} = \blacksquare \text{ cm}$

17. $3 \text{ m} = \blacksquare \text{ cm}$

18. $2 \text{ km} = \blacksquare \text{ m}$

Write in standard form.

19. $200 + 40 + 3$

20. $400 + 20 + 8$

21. $300 + 5$

22. two hundred six

23. three hundred eighty

24. Count from 195 to 205 by ones.

25. Count from 360 to 440 by tens.

Use $<$ or $>$.

26. $260 \bullet 195$

27. $764 \bullet 778$

28. $461 \bullet 468$

Add.

$$\begin{array}{r} 29. \quad 24 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 60 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 58 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 67 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 33. \quad 25 \\ + 46 \\ \hline \end{array}$$

$$\begin{array}{r} 34. \quad 32 \\ + 70 \\ \hline \end{array}$$

$$\begin{array}{r} 35. \quad 38 \\ + 65 \\ \hline \end{array}$$

$$\begin{array}{r} 36. \quad 76 \\ + 67 \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 37. \quad 60 \\ - 30 \\ \hline \end{array}$$

$$\begin{array}{r} 38. \quad 75 \\ - 34 \\ \hline \end{array}$$

$$\begin{array}{r} 39. \quad 63 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 40. \quad 72 \\ - 36 \\ \hline \end{array}$$

$$\begin{array}{r} 41. \quad 84 \\ - 77 \\ \hline \end{array}$$

$$\begin{array}{r} 42. \quad 134 \\ - 47 \\ \hline \end{array}$$

$$\begin{array}{r} 43. \quad 122 \\ - 44 \\ \hline \end{array}$$

$$\begin{array}{r} 44. \quad 102 \\ - 38 \\ \hline \end{array}$$

Find the difference:

45. between 28 and 46.

46. between 60 and 3.

47. between 70 and 11.

48. between 29 and 105.

Solve.

49. Mrs. Smith had 75 rulers. Her class of 27 students used 28 of them. How many rulers were left?

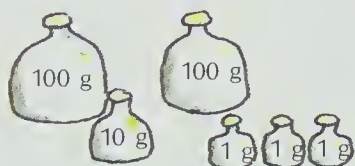
50. Mr. Jones had 75 erasers. He got 18 more erasers for 3 new students. How many erasers in all?

Cumulative Test

UNITS 6-10

Pick the more reasonable mass and length.

- 20 cm long **or** 1 m long
- 80 g **or** 80 kg
- How heavy?



- What time?



Complete the pattern.

5. 3, 6, ■, 12, ■, ■, 21

6. 5, ■, 15, ■, ■, ■, ■, 40

Multiply.

7. 3×3

8. 2×8

9. 4×5

10. 6×0

11. 5×9

12. 8×1

13. 3×7

14. 5×5

Divide.

15. $8 \div 2$

16. $12 \div 3$

17. $16 \div 4$

18. $40 \div 5$

19. $0 \div 3$

20. $20 \div 5$

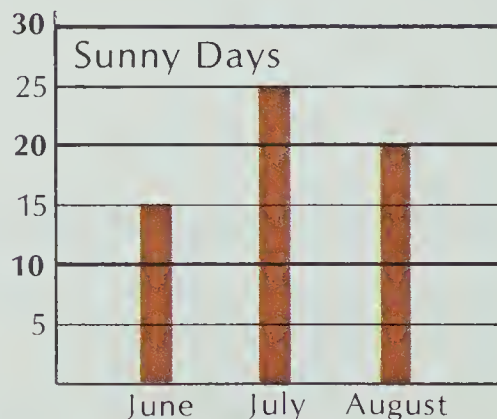
21. $6 \div 1$

22. $32 \div 4$

23. How many days in August were sunny?

24. In which month were the fewest sunny days?

25. What was the difference between July and June?



Add.

$$\begin{array}{r} 26. \quad 624 \\ + 305 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad 328 \\ + 218 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad 362 \\ + 460 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad 365 \\ + 82 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad 284 \\ + 217 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad 277 \\ + 463 \\ \hline \end{array}$$

$$\begin{array}{r} 32. \quad 27 \\ 35 \\ + 64 \\ \hline \end{array}$$

$$\begin{array}{r} 33. \quad 470 \\ 188 \\ + 277 \\ \hline \end{array}$$

34. Round 379 to the nearest 10.

35. Round 451 to the nearest 100.

36. Estimate the sum: $379 + 208$

Subtract.

$$\begin{array}{r} 37. \quad 765 \\ - 234 \\ \hline \end{array}$$

$$\begin{array}{r} 38. \quad 832 \\ - 216 \\ \hline \end{array}$$

$$\begin{array}{r} 39. \quad 687 \\ - 189 \\ \hline \end{array}$$

$$\begin{array}{r} 40. \quad 711 \\ - 256 \\ \hline \end{array}$$

$$\begin{array}{r} 41. \quad 821 \\ - 64 \\ \hline \end{array}$$

$$\begin{array}{r} 42. \quad 756 \\ - 93 \\ \hline \end{array}$$

$$\begin{array}{r} 43. \quad 370 \\ - 135 \\ \hline \end{array}$$

$$\begin{array}{r} 44. \quad 410 \\ - 222 \\ \hline \end{array}$$

$$\begin{array}{r} 45. \quad 202 \\ - 28 \\ \hline \end{array}$$

$$\begin{array}{r} 46. \quad 307 \\ - 128 \\ \hline \end{array}$$

$$\begin{array}{r} 47. \quad 500 \\ - 165 \\ \hline \end{array}$$

$$\begin{array}{r} 48. \quad 800 \\ - 725 \\ \hline \end{array}$$

49. Find the difference between \$6.35 and \$4.25.



50. How much money?



Cumulative Test

UNITS 11-15

Give the answers.

	Name	Number of		
		Faces	Edges	Corners
	1. ■	2. ■	3. ■	4. ■
	5. ■	6. ■	7. ■	8. ■

9. What is at (2,4)?
10. Where is the ●?
11. If the ● slides left one and down two, where will it be?

5					
4		B			●
3	A				
2				C	
1			D	E	
	1	2	3	4	5

Multiply.

12.
$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

16. 3×7

17. 9×7

18. 7×5

19. 7×7

20.
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

24. How many days in 3 weeks?
25. How many week days in 8 weeks?

Divide.

26. $2 \overline{)18}$

27. $5 \overline{)20}$

28. $3 \overline{)16}$

29. $4 \overline{)24}$

30. $5 \overline{)21}$

31. $4 \overline{)30}$

32. $2 \overline{)19}$

33. $3 \overline{)29}$

How many complete cards can be made with 21 problems?

How many problems will be left over for each?

34. 5 problems per card

35. 3 problems per card

Write the fraction.



Write the decimal.

38. $\frac{3}{10}$



Put these in order.

40. 0.6, 1.5, 0.7, 1.3.

Change to metres.

41. 6 m and 25 cm

Add.

42. $0.6 + 0.7$

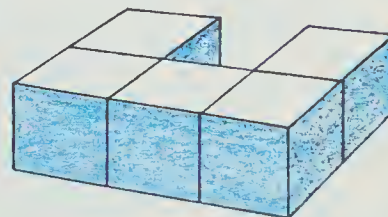
Subtract.

43. $\$6.53 - \2.27

44. Which unit?
litres **or** metres?



45. How many cubic
centimetres?



Multiply.

46. $\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$

47. $\begin{array}{r} 100 \\ \times 8 \\ \hline \end{array}$

48. $\begin{array}{r} 23 \\ \times 3 \\ \hline \end{array}$

49. $\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$

50. $\begin{array}{r} 15 \\ \times 3 \\ \hline \end{array}$

Add.

Addition Facts

$$\begin{array}{r} 1. \quad 8 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 6 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 7 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 3 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 9 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 8 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 6 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 8 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 4 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 3 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 7 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 8 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 7 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 0 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 9 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 5 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 2 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 9 \\ + 1 \\ \hline \end{array}$$

Subtract.

Subtraction Facts

$$\begin{array}{r} 1. \quad 13 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 12 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 7 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 18 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 17 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 14 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 9 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 16 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 13 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 11 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 11 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 12 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 14 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 13 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 14 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 13 \\ - 5 \\ \hline \end{array}$$

Multiplication Facts

Multiply.

$$\begin{array}{r} 1. \quad 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 0 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 3 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 2 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 6 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 6 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 3 \\ \times 9 \\ \hline \end{array}$$

Division Facts

Divide.

$$1. \quad 3 \overline{)21}$$

$$2. \quad 5 \overline{)15}$$

$$3. \quad 3 \overline{)0}$$

$$4. \quad 4 \overline{)16}$$

$$5. \quad 5 \overline{)35}$$

$$6. \quad 3 \overline{)18}$$

$$7. \quad 2 \overline{)6}$$

$$8. \quad 4 \overline{)28}$$

$$9. \quad 5 \overline{)30}$$

$$10. \quad 1 \overline{)4}$$

$$11. \quad 3 \overline{)27}$$

$$12. \quad 3 \overline{)24}$$

$$13. \quad 4 \overline{)36}$$

$$14. \quad 3 \overline{)9}$$

$$15. \quad 1 \overline{)0}$$

$$16. \quad 5 \overline{)20}$$

$$17. \quad 2 \overline{)18}$$

$$18. \quad 4 \overline{)32}$$

$$19. \quad 3 \overline{)15}$$

$$20. \quad 2 \overline{)16}$$

$$21. \quad 3 \overline{)6}$$

$$22. \quad 4 \overline{)24}$$

$$23. \quad 5 \overline{)10}$$

$$24. \quad 2 \overline{)14}$$

$$25. \quad 5 \overline{)25}$$

$$26. \quad 2 \overline{)2}$$

$$27. \quad 4 \overline{)20}$$

$$28. \quad 3 \overline{)12}$$

$$29. \quad 5 \overline{)45}$$

$$30. \quad 2 \overline{)10}$$

Addition

Add.

$$\begin{array}{r} 1. \quad 36 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 27 \\ + 38 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 38 \\ + 43 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 39 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 15 \\ + 33 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 98 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 11 \\ + 99 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 23 \\ + 48 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 43 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 66 \\ + 78 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 37 \\ + 84 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 54 \\ + 26 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 27 \\ + 61 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 82 \\ + 73 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 65 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 28 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 55 \\ + 53 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 81 \\ + 92 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 76 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 32 \\ + 98 \\ \hline \end{array}$$

Addition

Add.

$$\begin{array}{r} 1. \quad 236 \\ + 153 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 384 \\ + 605 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 327 \\ + 334 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 358 \\ + 605 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 651 \\ + 263 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 271 \\ + 382 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 364 \\ + 248 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 400 \\ + 390 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 392 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 222 \\ + 487 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 826 \\ + 94 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 766 \\ + 178 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 903 \\ + 69 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 376 \\ + 328 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 718 \\ + 182 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 5 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 843 \\ + 154 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 627 \\ + 84 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 785 \\ + 188 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 236 \\ + 554 \\ \hline \end{array}$$

Subtraction

Subtract.

$$\begin{array}{r} 1. \quad 86 \\ - 53 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 65 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 98 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 40 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 46 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 80 \\ - 11 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 94 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 55 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 98 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 35 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 135 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 121 \\ - 41 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 127 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 120 \\ - 72 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 115 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 105 \\ - 68 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 103 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 87 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 100 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 103 \\ - 21 \\ \hline \end{array}$$

Subtraction

Subtract.

$$\begin{array}{r} 1. \quad 365 \\ - 205 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 658 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 291 \\ - 190 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 483 \\ - 226 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 257 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 756 \\ - 84 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 329 \\ - 139 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 846 \\ - 119 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 207 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 808 \\ - 112 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 620 \\ - 307 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 431 \\ - 388 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 711 \\ - 199 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 431 \\ - 283 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 458 \\ - 264 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 820 \\ - 179 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 206 \\ - 118 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 900 \\ - 225 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad 600 \\ - 136 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad 438 \\ - 339 \\ \hline \end{array}$$

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